



Desert Harvest Solar Project

Draft Environmental Impact Statement and Draft California Desert Conservation Area Plan Amendment

Volume 3: Appendix B – Appendix C-4

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SCOPING REPORT

Desert Harvest **Appendix B**

Environmental Impact Statement
California Desert Conservation Area
Land Use Plan Amendment

Bureau of Land Management



October 2014

SCOPING REPORT

Desert Harvest Solar Project Environmental Impact Statement and California Desert Conservation Area Land Use Plan Amendment

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October 2011

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1 INTRODUCTION

1.1 The Purpose of Scoping

Scoping is the process for an Environmental Impact Statement (EIS) by which the Lead Agency solicits input on the issues and impacts that will be addressed in a National Environmental Policy Act (NEPA) document as well as the degree to which those issues and impacts will be analyzed. The intent of scoping is to focus the analysis on significant issues and reasonable alternatives, to eliminate extraneous discussion, and to reduce the length of the EIS.

Scoping must be conducted both internally with appropriate BLM staff, and externally with interested and affected public, agencies, tribes, and organizations (40 CFR 1501.7).

The Council on Environmental Quality (CEQ) regulations at 40 CFR 1501.7 require the following in an agency's scoping process:

- Invite participation from affected federal, State, local, and tribal organizations and interested persons.
- Determine the scope or extent of the EIS and the significant issues to be analyzed. Scoping is valuable in identifying connected, cumulative, and similar actions.
- Eliminate those issues raised that are not related to potentially significant impacts or those that have been covered in other environmental documents. Make assignments for preparation of the EIS between the lead and cooperating agencies.
- Identify any environmental documents being prepared that have relevance to, but are not part of, the scope of this EIS.
- Identify other environmental review and consultation requirements.
- Discuss the relationship between the timing of the preparation of the EIS and the agency's tentative planning and decision-making schedule.

1.2 Brief Description of the Project

enXco has requested a right-of-way (ROW) to develop the Desert Harvest Solar Project, a photovoltaic generating facility with a footprint of approximately 1,208 acres. The overall site layout and generalized land uses would include a substation, an administration building, operations and maintenance facilities, a transmission line, and temporary construction lay down areas. The project's 230-kilovolt (kV) generation-intertie (gen-tie) line would either be a shared facility with an adjacent approved project, First Solar's Desert Sunlight Solar Farm, or would be located on private and BLM-administered lands in the Chuckwalla Valley. The project would interconnect to the regional electric grid via the planned 230/500-kV Southern California Edison Red Bluff Substation.

1.3 Potential Land Use Plan Amendment to the California Desert Conservation Area Plan

The project would be located on land that is subject to the BLM's California Desert Conservation Area (CDCA) Plan. All of the public lands in the CDCA under BLM management, except for a few small and scattered parcels, have been designated geographically as a Multiple Use Class (MUC) as follows: Controlled Use (C), Limited Use (L), Moderate Use (M), and Intensive

Use (I). The Project is mostly located in BLM designated M lands. For M lands, wind and solar electric generation facilities may be allowed after National Environmental Policy Act (NEPA) requirements are met. The transmission corridor is located within (L) lands, which are lands managed to provide lower-intensity, carefully controlled multiple use of resources while ensuring that sensitive values are not significantly diminished. The CDCA also states that sites associated with power generation or transmission not identified in the CDCA will be considered through the Plan Amendment process. The project site is currently not identified in the CDCA. The CDCA Plan also allows new transmission facilities within corridors. There is not a corridor located between the generation location to the substation. Therefore, prior to right-of-way (ROW) grant issuance, the project would require a Land Use Plan Amendment to the CDCA: to find the generation site suitable for large scale solar generation and allow this use, and to allow the transmission line outside of a corridor.

2 SCOPING PROCESS SUMMARY

2.1 Notice of Intent

The BLM published a Notice of Intent (NOI) to prepare an EIS on September 15, 2011 in the Federal Register Volume 76, Number 179. Publication of the NOI began a 30-day comment period which ended on October 17, 2011. BLM provided a website with project information that also described the various methods of providing public comment on the project including an e-mail address where comments could be sent electronically.

2.2 Public Notification

Notification for public Scoping Meetings was posted on BLM's website. In addition, notices were sent to all landowners within 300 feet of the project boundary and other interested parties during the week of September 19th.

2.3 Public Scoping Meeting

Public Scoping Meetings were held on October 3, 2011 at the University of Riverside Palm Desert Graduate Center located at 75-080 Frank Sinatra Drive in Palm Desert, California and at the Lake Tamarisk Clubhouse located at 26251 Parkview Drive in Desert Center, California. A public Scoping Meeting was held on October 6, 2011 at the Joshua Tree Community Center located at 6171 Sunburst Street in Joshua Tree, California. A presentation describing the environmental review process was presented by the BLM, and a presentation on the project was made by enXco. Attendees were documented by signing in on a voluntary sign-in sheet, including 6 attendees at the University of Riverside Palm Desert Graduate Center along with KMIR TV, 30 attendees at the Lake Tamarisk Clubhouse, and 7 attendees at the Joshua Tree Community Center. A court reporter documented the questions and public comments made at the three scoping meetings.

Attendees included residents from Desert Center and Lake Tamarisk, federal and State agency representatives, nearby business owners, Tribes, Chamber of Commerce members, and an environmental group representative. Eight of the attendees were on the Desert Harvest mailing list prior to the public scoping meetings.

2.4 Written Comments

Twelve comment letters were received within the comment period. Scoping comments were accepted until October 21, 2011.

3 COMMENT SUMMARY AND ANALYSIS

Issues were identified by reviewing the comment documents received. Many of the comments identified similar issues. The following section provides a summary of the issues, concerns, opportunities, and/or questions. For this report, the issues have been grouped into one of the three following categories:

- Issues or concerns that could be addressed by effects analysis;
- Issues or concerns that could develop an alternative and/or a better description or qualification of the alternatives;
- Issues or concerns outside the scope of the EIS.

The comments discussed below are paraphrased from the original comment letters and Scoping Meeting transcripts. To a minor degree, some level of interpretation was needed to identify the specific concern to be addressed. Many of the comments identified similar issues; to avoid duplication and redundancy similar comments were grouped together and then summarized. A copy of the comment letters is included in Attachment A to this Scoping Report. Transcripts from the Scoping Meetings are presented in Attachment B. The NOI and the notice of public scoping meetings are presented in Attachment C. The project mailing list is presented in Attachment D. Meeting attendees and meeting speakers are listed in the sign-in sheets and speaker cards shown in Attachment E. The presentation shown at the scoping meetings is in Attachment F. The maps and visual aids presented at the scoping meetings are located in Attachment G.

3.1 Effects Analysis

Purpose and Need

- The purpose and need should be a clear, objective statement of the rationale for the proposed project. It should discuss the project in the context of the larger energy market that this project would serve and how this project would assist the State in meeting its renewable energy portfolio (RPS) and goals.
- The purpose and need statement should not simply indicate that BLM is responding to an applicant's right of way application. The framing of the purpose and need should be broad enough to support alternatives that are meaningful.
- Purpose and Need Statements in many BLM documents reflect a need to develop so many megawatts on so many acres of public lands. The goals of Section 4 in Secretarial Order 3283 clearly state a need for environmental responsibility: "the permitting of environmentally responsible wind, solar, biomass, and geothermal operations and electrical transmission facilities on the public lands." The Purpose and Need Statement should reflect a need to protect and preserve habitat for sensitive species, preserve important ecological habitats, and to preserve sensitive cultural resources.

Monitoring

- EIS must explain the monitoring programs that will be in place to monitor the short and long term impacts of the project. This should include the timelines, and estimated costs and sources of funding for the monitoring programs.
- Incorporate mitigation, monitoring and reporting measures that result from consultation with USFWS and California Department of Fish and Game and incorporate lessons learned from other solar projects and recently released guidance.

Decommissioning

- Decommissioning Plan should include cost estimates including a bond or other form of financial assurance adequate to cover costs of decommissioning, time allotted to decommissioning, and a description of decommissioning measures.

Public Participation

- BLM should have provided additional information to the public, especially in the nearby communities. Few people in Desert Center were aware of the scoping meetings and no notices were posted in the community.

Air Resources

- EIS should provide a detailed discussion of ambient air conditions, National Ambient Air Quality Standards, and criteria pollutants nonattainment areas in the Project Area.
- EIS should estimate emissions of criteria pollutants from the Project, specify emission sources by pollutant, identify a Draft Construction Emissions Mitigation Plan and adopt such a decision in the Plan of Decision.
- EPA included recommendations for control measures including for the Fugitive Dust Control Plan, Mobile and Stationary Source Controls, and additional administrative controls.
- EIS should analyze the health impacts that airborne particulates from construction dust will have on the local residents of the area, including Valley Fever.
- EIS should analyze the cumulative impacts on air quality that will result from the removal so much stabilized soil and biological soil crust. EIS should consider how the cumulative effects of the large development projects in the Chuckwalla Valley would impact the air quality of the Chuckwalla DWMA and the Joshua Tree National Park.
- EIS should discuss how cumulative air impacts will be monitored so that the National Park Service and other land management agencies have accurate data on the cumulative and individual impacts of development projects in the Chuckwalla Valley.

Biological Resources

- EIS should identify all petitioned and listed threatened and endangered species and critical habitat in the project area. EIS should identify and quantify which species and critical habitat would be affected directly, indirectly, or cumulatively by each alternative. Protocol-level seasonal surveys should be performed for sensitive plant species and vegetation communities, and animal species under the direction and supervision of the resource agencies. Full disclo-

sure of survey methods and results to the public and other agencies without limitations imposed by the applicant must be implemented.

- Vegetation/wash habitat mapping should be at such a scale to provide an accurate accounting of wash areas and adjacent habitat types that will be directly or indirectly affected by the proposed activities. A half-acre minimum mapping unit size is recommended.
- Desert woodland communities, including an Ironwood forest, are present along washes in the project area and stands of ironwood. EIS should inventory the vegetation communities present on the site and explain for each alternative considered what avoidance measures will be adopted to minimize impacts to any rare desert communities.
- NEPA analysis should identify to what extent the proposed project would affect lands within the dissected fans or upper bajadas adjacent to the McCoy Mountains which contain higher quality desert tortoise habitat, and identify alternatives or impact avoidance measures necessary to avoid habitat loss in these areas.
- EIS should describe the restoration and rehabilitation activities that will be required for habitat disturbed during construction. Rehabilitation of desert habitat is a long, slow and uncertain process.
- BLM should consult with the U.S. Fish and Wildlife Service (USFWS) and prepare a Biological Option under Section 7 of the Endangered Species Act. BLM should coordinate across field offices and with the USFWS and California Department of Fish and Game to ensure current and consistent surveying, monitoring, and reporting protocols.
- EIS should discuss monitoring, mitigation, and translocation management plans for sensitive biological resources including an Avian Protection Plan; Raven Monitoring, Management, and Control Plan; Burrowing Owl Mitigation, Monitoring, and Translocation Plan; Desert Tortoise Relocation/Translocation Plan; Desert Tortoise Compensatory Mitigation Plan; Special-Status Plant Impact Avoidance and Mitigation Plan; Management Plan for Sand Dune/Fringed-Toed Lizard.
- Design of Gen-Tie Line should be in compliance with current standards and practices to reduce raptor fatalities; see Avian Power Line Interaction Committee documents. EIS should also include a requirement for an Avian Protection Plan.
- **Avian Species.** EIS should limit construction activity period to September 1 to February 1 if burrowing owls are present in the area as noted in the NECO Plan [at 2-43].
- EIS should consider impacts to bird species in region that are state protected, NECO special status species, and/or BLM sensitive species, including Golden Eagle (*Aquila chrysaetos*), Loggerhead Shrike (*Lanius ludovicianus*), Western Burrowing Owl (*Athene cunicularia hypugaea*), Le Conte's Thrasher (*Toxostoma lecontei*), Bendire's Thrasher (*Toxostoma bendirei*), Crissal Thrasher (*Toxostoma crissale*), Swainson's hawk (*Buteo swainsonii*), Vaux's Swift (*Chaetura vauxi*), and Brewer's Sparrow (*Spizella breweri*), prairie falcon (*Falco mexicanus*), and mountain plover (*Charadrius montanus*).
- The Applicant should conduct golden eagle surveys rather than relying on data from other projects. Surveys should provide information regarding golden eagles within a 10-mile radius of the project area for the EIS analysis. See Golden Eagle Inventory and Monitoring Protocols (Pagel *et al.* 2010).

- EIS should consider impacts of polarized reflection of PV facilities on birds and insects.
- EIS should consider risk of avian mortality from collision with structures as reflective surfaces are especially prone to collisions. EIS should include a risk analysis to resident and migratory birds and determine the collision risks.
- **Wildlife Corridors.** EIS should discuss habitat fragmentation and obstruction of wildlife because Project is located between Joshua Tree National Wildlife and Chuckwalla Desert Wildlife Management Area. The project site is located within an identified California Essential Habitat Connectivity corridor, and an evaluation of the project's impacts on wildlife movement is essential.
- The EIS should ensure any proposed on-site wildlife movement corridors are wide enough to minimize edge effects and allow natural processes of disturbance and subsequent recruitment to function. The EIS should also evaluate whether the proposed wildlife movement corridors would provide key resources for species, such as host plants, pollinators, or other elements. For example, many species commonly found in washes depend on upland habitats during some portion of their cycle. Therefore, in areas with intermittent or perennial streams, upland habitat protection is needed for these species. Upland habitat protection is also necessary to prevent the degradation of aquatic habitat quality.
- **Mitigation lands.** Compensatory lands, locations, and management plans should be addressed in the EIS for impacts to waters of the State and biological resources. Given the cumulative solar projects in the Chuckwalla Valley area, land may not be available to compensate for environmental impacts and may serve as a limiting factor.
- Acquisition lands may be required as part of the mitigation and will need to be managed in perpetuity for conservation. Mitigation lands should be high-quality habitat and, at minimum 5:1 mitigation should be provided of all acres of burrowing owl habitat destroyed.
- The primary mitigation for impacts to desert tortoise and rare plants should be avoidance or the acquisition of occupied compensation habitat since this is the only mitigation measure that will offset the habitat loss. Acquisition of habitat should be accompanied with enhancement measures to compensate for the net loss of habitat. These measures may include removal of livestock, fencing where appropriate, invasive species control, small scale restoration projects, and route closures.
- **Sensitive Plant Species.** EIS should consider rare and sensitive plant species. The southwestern piece of the Project overlies a significant population of Emory's crucifixion-thorn, *Castela emoryi*. Emory's crucifixion-thorn found in locally restricted sites in the southern Mojave and Sonoran deserts with only 13 records from the NECO Plan area (page 3-24).
- A number of other rare plants occur on the project or in the vicinity including the Coachella Valley Milkvetch (*Astragalus lentiginosus* var. *coachellae*), California ditaxis (*Ditaxis serrata* var. *californica*), foxtail cactus (*Coryphantha alversonii*), slender-spined all-thorn (*Koeberlinia spinosa* ssp. *tenuispina*), California ayenia (*Ayenia compacta*), Harwood's milkvetch (*Astragalus insularis* var. *harwoodii*), Coves' cassia (*Cassia covesii*), Las Animas colubrine (*Colubrina californica*), desert unicorn plant (*Proboscidea althaeifolia*), and desert devil's claw (*Proboscidea althaeifolia*).
- For rare plants, avoidance is preferable. If transplantation is to be a part of the mitigation strategy, a detailed final plan must be included as part of the EIS on the methodology for deter-

mination of appropriate conservation area where plants may be transplanted, when/how plant are to be transplanted and identification of success criteria for transplantation. Monitoring of the transplanted plants needs to occur for a time period that is realistic to evaluate long-term success of the plants.

- **Desert Tortoise.** EIS should clearly characterize and identify desert tortoise population on site and should consider the status of tortoise in the affected recovery unit. The Project area will likely have desert tortoise occurring on site, because 1) it connects the BLM DWMA which lies directly south and west of the project site to Joshua Tree National Park and 2) tortoise were found on the Desert Sunlight project site directly to the north of this project. The Project would directly, indirectly and cumulatively impact desert tortoise, including habitat loss, habitat disturbance, and habitat fragmentation. EIS must also consider impacts to connectivity between desert tortoise populations.
- The EIS must minimize any impacts to desert tortoise that it finds are unavoidable, mitigation should limit the ground disturbing activities from the project and limit access roads to the project. Mitigation should include ecological restoration, construction of vehicle barriers and education programs designed to improve desert tortoise habitat and population viability.
- EIS should discuss mitigation ratios for tortoise habitat and how they relate mitigation ratios recommended by agencies and mitigation ratios used for other renewable projects in California and Nevada. Five to one mitigation of all acres of desert tortoise habitat destroyed was recommended. Desert tortoise habitat lands should be acquired within the affected Eastern Colorado Recovery Unit.
- EIS should address desert tortoise translocation. The CDCA Plan does not consider large-scale desert tortoise translocation. The BLM would need to amend the CDCA Plan or develop a desert tortoise translocation plan if project moves forward. Translocation plan must be developed in accordance with BLM Handbook 1745 requirements. Monitoring of the translocated and existing “host” tortoises needs to occur for long enough to realistically evaluate success of the translocation. Success criteria for translocation must be clearly identified. Temporary project sites need to be fenced with tortoise proof fencing during construction and the permanent project sites need to be fenced to prevent tortoise mortality. All associated roads need to be fenced.
- EIS should use the recently released USGS desert tortoise habitat model to determine likely changes in desert tortoise habitat quality in the area and the importance of the desert tortoise habitat due to climate change.
- **Other species.** Project site is located between Eagle Mountains and Coxcomb Mountains big-horn sheep deems and may provide connectivity between the two. EIS should consider direct, indirect, and cumulative impacts to this species.
- EIS should consider other state protected species, NECO special status species and BLM sensitive species of wildlife occur on the project or in the vicinity including the Palm Springs round-tailed ground squirrel (*Spermophilus tereticaudus chlorus*), Mojave fringe-toed lizard (*Uma scoparia*), chuckwalla (*Sauromalus ater*), California leaf-nosed bat (*Macrotus californicus*), Pallid bat (*Antrozous pallidus*), other rat bat species, American badger (*Taxidea taxus*), mountain lion (*Puma concolor*), burro deer (*Odocoileus hemionus eremicus*), and Desert Leafcutting Ant (*Acromyrmex versicolor*).

- EIS should evaluate the impacts on locally rare species (not merely federal- and state-listed threatened and endangered species). The preservation of regional and local scales of genetic diversity is very important to maintaining species in perpetuity especially in light of global climate change. All species found at the edge of their ranges or that occur as disjunct locations be evaluated for impacts by the proposed permitted activities.
- **Invasive Weeds.** EIS must consider the impacts of the project on invasive weeds and should consider how invasive plants and weeds will be managed and controlled from the initial ground disturbance. EIS should include an invasive species management plan to monitor and control noxious weeds. Invasive weeds include Russian thistle (*Salsola tragus*), Sahara mustard (*Brassica tournifortii*), red brome (*Bromus rubens*), and orchardgrass (*Dactylis glomerata*). EIS must consider invasive weeds along linear facilities.
- EIS should consider impacts of any herbicides used for weed control, including Roundup.
- **Other.** EIS should consider impacts to biological soil crusts including means of mitigating for the impacts.
- EIS should discuss impacts associated with fencing around the project site(s) and consider options with fewer impacts.
- EIS should discuss impacts associated with an increase of shade in the desert environment. EIS should address the temperature change in the area with the increase of shade due to panels and the removal of existing trees.
- The site has potential to be sited on the sand transport corridor that originates in Joshua Tree National Park, through the Palen and Ford Dry Lake Valleys, across Interstate 10 to the agricultural areas adjacent to Blythe. This corridor provides sand habitat for a suite of sand-specialists, including the Mojave fringe-toed lizard. Disruption to the sand transport corridor should be identified, minimized and analyzed.

Climate Change

- EIS should consider how climate change could influence the Project in sensitive areas and assess how Project impacts could be exacerbated by climate change.
- EIS should disclose anticipated benefits of solar energy including quantifying the greenhouse gas emissions from different types of generating facilities and comparing these values.
- In addition to addressing climate change in the cumulative effects analysis, the EIS should address the carbon footprint of the project and any losses to carbon storage and sequestration it will engender.
- The EIS should evaluate specific mitigation measures to reduce greenhouse emissions from mobile sources.
- Transmission line upgrades and new transmission facilities may increase the use of the greenhouse gas called SF₆; EIS should provide an analysis of the amount of SF₆ gases that would be released by this project.

Cultural Resources

- Native American Heritage Commission conducted a Sacred Lands File search of its Inventory and Native American cultural resources were not identified in the project area. However, early

consultation with Native American tribes is recommended and may provide additional information of sites. A list of Native American contacts in Riverside County was provided.

- EIS should describe process and outcome of government-to-government consultation between BLM and each tribe government in the Project area, issues that were raised and how those issues were addressed in the alternatives.
- EIS should describe the existence of Indian sacred sites in the project areas, Executive Order 13007 and discuss how the BLM will avoid adversely affecting physical integrity, accessibility, or use of sacred sites if they exist in the area. EIS should summarize coordination with Tribes and SHPO/THPO including identification of NRHP eligible sites and development of a Cultural Resources Management Plan.
- La Cuna de Aztlan Sacred Site Protection Circle is comprised of 15 Native American individuals dedicated to protecting Sacred Sites including the Blythe Giant Intaglios, geoglyphs, and other sacred sites along the Colorado River. La Cuna de Aztlan is against the project because it would impact Native American Sacred Sites that are protected under State, federal, county, and international law. It will also impact animals that are sacred to indigenous nations, including the desert tortoise and horny toad. La Cuna de Aztlan offered to give tours to archaeologists and anthropologists interested in visiting the sites.
- EIS should address the cumulative impacts to Native American cultural sites due to the large numbers of renewable energy projects. EIS should analyze impact to tribal use of the land including the Spiritual Run, cremations, and dance patterns.
- Consultation with the Information Center of the California Historic Resources Information System of the State Historic Preservation Office is recommended.
- Lead Agencies should consider avoidance of cultural resources that are discovered.
- NEPA regulations provide for accidental discovery of archaeological resources and mandate processes in the event of an accidental discovery of human remains. California Government Code §27460 should be followed in the case of an accidental discovery of human remains during groundbreaking activity. California Government Code §27491 and California Health & Safety Code §7050.5 may apply.

Fire and Fuels Management

- EIS should address wildfire risks for each project alternative. Wildfires are becoming common in the Mojave Desert facilitated by the spread of invasive weeds and climate change. Wildfires can result in type conversion of large expanses of habitat. Wildfires could be caused by construction or operation of the transmission lines and development of roads which could encourage increased motorized vehicle access and increase fire risk.
- Fire study on panels should include panels in a diagonal position.

Land and Realty

- EIS should discuss the Desert Renewable Energy Conservation Plan and the Solar Programmatic EIS including up to date maps illustrating current boundaries and alternatives and acknowledge the requirements and/or conditions that may apply.

- EIS should discuss how the proposed action would support or conflict with objectives of federal, state, tribal, or local land use plans, policies, and controls in the project areas.
- EIS should discuss any potential land use conflicts between the Proposed Action and the proposed Eagle Mountain Pumped Storage Project. Eagle Mountain Pumped Storage Project EIS recommended a transmission route that would parallel the SCE transmission line that crosses the southwestern parcel of the project site.
- EIS should discuss the land use conflicts between the Proposed Action and the existing rural populations in the vicinity.
- BLM should explain what its duties are and how it manages the land it has in the Desert.
- EIS should explain the role of the County of Riverside and the California Environmental Quality Act.
- National Parks Conservation Association is concerned that the Proposed Action does not comply with the February 24, 2011 National Park Service/BLM Memo regarding development of renewable energy in the Eagle Mountain area on Bureau of Land Management Land.

Recreation

- EIS should consider impacts to Joshua Tree National Park, including cumulative impacts from Desert Sunlight Solar Project.
- EIS should consider impacts to the Lake Tamarisk recreational opportunities including the golf course, bike riding, walking, and ATVing.

Social and Economics

- Construction of this project would bring hundreds of new people to the Desert Center area. EIS should consider law enforcement problems, including illegal off-roading, vandalism to private property, harassment of wildlife and other undesired behavior.
- EIS should address impacts to housing because no local housing exists for the proposed construction workforce. Use of shuttle buses for construction workers will impact local roads.
- EIS should address impacts to property values and future real estate potential of the local community.
- EIS should address what, if any, benefits would the local community receive from the project. The local community will be most impacted by the project.
- EIS should consider impacts to utilities in the local communities. The Desert Sunlight Solar Project construction is already using the few utilities available. This results in an impact to existing infrastructure and Desert Center does not have a city government or funding to improve this infrastructure.
- EIS should describe outreach to all communities affected by the project as rural communities may be most vulnerable to health risks associated with the project. The Proposed Action would be located near the community of Desert Center which has one major solar project being constructed on nearby public lands. This project will further restrict access to public lands by members of the community who would bear the brunt of any visual impacts, impacts

to water resources, impacts to other resources, and the consequences of the industrialization of this relatively rural community.

Environmental Justice

- EIS should include evaluation of environmental justice populations within the geographic scope of the project and address disproportionate adverse impacts to minority or low-income populations in addition to the approaches used to foster public participation of these populations.

Water Resources

- EIS should discuss the amount of water required for the Proposed Action and water source(s), including potential impacts to source(s) from climate change. Should include a qualitative discussion of impacts to water supply and adaptability of the project to these changes.
- Analysis of impacts to groundwater basin should include cumulative water use for nearby energy projects and impacts to the Pinto Basin beneath the Joshua Tree National Park.
- EIS should discuss impacts to the groundwater basin including assumptions about the number of acre feet already allocated, annual recharge rates, water permitting process, and status of water rights in the basin, including over-allocation of water. EIS should characterize functions of aquatic features that could be affected by the Proposed Action.
- Commenter offered for the Applicant to use their water well and monitoring wells to do a baseline study for groundwater availability.
- Discussion regarding non-groundwater sources of water, including potable water, irrigation canal water, wastewater, or deep-aquifer water.
- EIS should discuss effects of water discharge on surface water quality, identify specific discharges, and if a zero-discharge facility, disclose how water would be disposed of onsite.
- EIS should include all water conservation measures that will be implemented to reduce water demands. Project design should maximize water conservation measures.
- EIS should minimize impacts to water: avoid placement of structures in washes, utilize natural drainage channels, use natural washes for flood control, minimize road crossings over washes, and avoid complete clearing and grading of site.
- EIS should describe natural drainage pattern on site and identify if project components are within the 50- or 100-year floodplain.
- EIS should consider upstream and downstream reach of waters and their importance to the landscape. Potential damage to washes includes alterations to the hydrological functions that natural channels provide in arid ecosystems, including capacity for flood control, energy dissipation, and sediment movement.
- *Clean Water Act Section 404.* EIS should include jurisdictional delineation for all waters of the United States including ephemeral drainages, to confirm presence or absence of waters of the United States. Discussion should include figures of the waters, acreages, channel lengths, habitat types, values, and functions. If a Section 404 permit is required, EPA will review the project for compliance with Section 404(b)(1) Guidelines.

- EIS should determine if a California State Water Resources Control Board General Permit for Discharges of Storm Water Associated with Construction Activity and Storm Water Pollution Prevention Plan (SWPPP) will be required. SWPPP should include Best Management Practices, including for erosion control and monitoring.

Solid and-Hazardous Wastes

- EIS should address potential direct, indirect, and cumulative impacts of hazardous waste from construction and operation including herbicides and pesticides, waste types, volumes, and expected storage, disposal, and management plans. Appropriate mitigation should be included, and alternate processes using less toxic materials should be evaluated.
- The Applicant should address full life cycle including reuse and recycling of panels.
- EIS should consider potential Cadmium-Telluride (CdTe) pollution events and impacts on public health, water resources and flora and fauna.
- EIS should include breakage and failure rate from other CdTe power plants to get a better approximation of how often breakage occurs on site. How are panels inspected for breakage, what criteria are used to determine a panel is broken. EIS should consider recent result regarding leaching potential of CdTe from broken PV modules and PV placed in landfills.
- EIS should review databases of regulatory agencies to determine if the project would pose a threat to human health or the environment.
- EIS should identify the mechanism to initiate any required investigation and/or remediation for any site within the area that may be contaminated and the government agency to provide regulatory oversight.
- Any Phase I or Phase II Environmental Site Assessment Investigations should be summarized, all sampling results in which hazardous materials were found above regulatory standards should be clearly summarized. All closure, certification, or remediation approval reports should be included in the EIS.
- If buildings or other structures are being demolished an investigation should be conducted for the presence of hazardous chemicals, mercury, and asbestos and the chemicals should be remediated in compliance with California environmental regulations and policies.
- Sampling of soil may be required; if soil is contaminated it must be disposed of appropriately.
- If a health risk assessment is required, it should be overseen and approved by the appropriate government agency to determine if there are, have been, or will be releases of hazardous materials that may pose a risk to human health and the environment.
- If the site was used for agriculture, agriculture related residue may be present and proper investigation and remedial actions should be conducted.
- If hazardous wastes are, or will be, generated by the proposed operations the wastes must be managed in accordance with California law and regulations. The facility should also obtain a United States Environmental Protection Agency Identification Number. Certain hazardous wastes are also regulated by the local Certified Unified Program Agency.

- Department of Toxic Substances Control can provide cleanup oversight through an Environmental Oversight Agreement for government agencies or a Voluntary Cleanup Agreement for private parties.

Visual Resources

- EIS should fully review the impacts of each alternative on visual resources including the effects on wilderness character and values.
- EIS should include Key Observation Point simulations that depict all visual impact scenarios. BLM required factors should be considered: angle of observation, length of time project is in view, and relative size or scale. Key Observation Points were recommended.
- EIS should identify what steps will be taken to mitigate and minimize light pollution and fugitive dust that could harm Joshua Tree National Park's night sky resources.
- EIS should design steps to minimize the Proposed Action's form, line and color from mountainous viewing points within wilderness or Joshua Tree National Park.

Cumulative Impacts

- EIS should consider cumulative impacts by identifying condition of resource as a measure of past impacts, identify the trend in the condition of the resource as a measure of current impacts, identify all on-going, planned and reasonably foreseeable projects in the study area, and identify the future condition of the resource from reasonably foreseeable projects or actions. The EIS should assess the contribution of the proposed alternatives and provide a specific measure for the project impact; if cumulative impacts are identified mitigation should be proposed.
- BLM should conduct a regional assessment of resource impacts, given the number of project planned in the region, including energy projects, off road vehicle activity and mining.
- EIS should describe reasonably foreseeable future land use and associated impacts that result for additional power supply. EIS should estimate the amount of growth, the likely location, and biological and environmental resources at risk.
- BLM should consider the ecological condition and trend of lands and biological resources within the western Chuckwalla Valley. The analysis should consider the adverse impacts from the recently approved 4,000 acre Desert Sunlight solar project as well as the potential impacts from pending applications in this region on both private and public lands. BLM needs to establish the carrying capacity for renewable energy in this area.

3.2 Alternative Development and/or Alternative Design Criteria

- The analysis should discuss the types of panels that would be used including the efficiencies of the panels. Alternatives should address the actual amount of energy generated by the panels including the energy loss due to transmission.
- The analysis should describe approach used to identify environmentally sensitive areas and describe the process used to designate them in terms of sensitivity. The DEIS should provide a clear discussion of reasons for elimination of alternatives not evaluated in detail.

- EIS should include alternatives not within the jurisdiction of the lead agency as mandated by NEPA; there are no mandates that state that BLM cannot consider an off-site alternative to an individual project like the Desert Harvest Project.
- Alternatives should include provisions for conserving at-risk species, such as the Desert tortoise, which would allow BLM to address, in part, its obligation under Section 7(a)(1) of the Endangered Species Act. Such alternatives should include conservation actions recommended by the FWS in recent biological opinions for large-scale solar projects in this planning area.
- Encourages the BLM and other parties to pursue siting of renewable energy projects on disturbed, degraded, or contaminated sites including fallow or abandoned agriculture lands over undisturbed public lands.
- Alternatives should be presented in comparison form, sharply defining issues and providing clear basis for choice among options by decision maker and public. Environmental effects of each alternative should be quantified as much as possible.
- EIS should analyze an environmentally preferred alternative that should consider options such as downsizing the project or relocating sections of the project on private land to avoid impacts.
- Comments recommended the following alternatives:
 - An alternative that uses a common gen-tie line alignment, right-of-way, and access roads and shared the northernmost boundary security fencing.
 - A desert or ephemeral wash avoidance alternative.
 - An alternative that mounts PV arrays at a height that would maintain natural vegetation and preserve natural drainages.
 - The No Action Alternative.
 - An alternative on public lands that are not desert tortoise habitat.
 - An alternative on private lands including the disturbed agriculture land around Desert Center.
 - An alternative where power generation is sited adjacent to power consumption.
 - A distributed generation alternative. Distributed generation would have fewer environmental costs including reducing the natural carbon-storing ability of healthy desert ecosystems, disturbing biological soil crusts, and degrading and fragmenting habitats of protected, sensitive, and rare species.
 - An alternative that removes the southwestern portion of the project to avoid Emory's crucifixion thorn (*Castela emoryi*).
 - An alternative that makes the proposed site unavailable for energy development.
 - An alternative that avoids the Desert Dry Wash Woodland habitat.
 - An alternative that avoids project siting within the WHMA.
 - An alternative that would reduce impacts to the Joshua Tree National Park.

3.3 Issues or Concerns Outside the Scope of the EIS

- A master comprehensive plan should exist before large expensive inefficient solar plants are sited and built out in the wildlands. This plan should carefully analyze the recreational and biodiversity resources of the Mojave Desert.

- The renewable resources of the CDCA should be developed through comprehensive, proactive planning involving federal, state and local governments to identify the most appropriate areas for such development and to guide development to those areas.
- BLM's process in authorizing the proposed project is flawed. BLM relies on developer-initiated siting rather than agency-guided siting for development of renewable energy projects.
- A commenter wondered whether the company was going to get government approval and then just sell the project to somebody else.

Dear Mr. Scott:

The Native American Heritage Commission (NAHC) is the California state agency authorized by Public Resources Code §21000 for the protection of California's Native American Cultural Resources. The NAHC is also a voluntary resource for environmental decisions governed under the National Environmental Policy Act (NEPA), 42 U.S.C. 4321 et seq., 35 CFR Part 100.2. It was also asked to give advice on proposed Native American resources as required by the National Historic Preservation Act, as amended (Section 106) (16 U.S.C. 470, Section 101.21 (b) (3) (i)). The proposed Desert Harvest Solar Project and its associated Air Quality, Paleontology, and Cultural Resources (CDCA) EIS and its associated 2010 CDCA Part 100.2, and California Government Code §21001 are being reviewed by the NAHC under the National Environmental Policy Act.

The NAHC is of the opinion that the project impacts, pursuant to the various sections of NEPA and the Council on Environmental Quality (CEQ) 40 CFR 1500.1-1500.17, which are similar to, and in some cases exceed, the impact to the environment of historic, including Native American, sites and archaeological, including Native American, sites of historic value to the California Department of Parks and Recreation (CDPR). In most cases, federal involvement and review require that any project that causes a substantial adverse change in the significance of an individual resource, that includes archaeological resources, and significant effect upon the properties of an Environmental Impact Statement (EIS).

The NAHC reviewed a Desert Lands Plan (DLP) issued by the Secretary and the U.S. Department of the Interior (DOI) and the project was not approved. The project was not approved because of the impact to the Native American sites and the project did not provide detailed information on the impact to the Native American sites and the project did not provide detailed information on the impact to the Native American sites.

The NAHC, Desert Lands Plan (DLP) issued by the Secretary and the U.S. Department of the Interior (DOI) and the project was not approved. The project was not approved because of the impact to the Native American sites and the project did not provide detailed information on the impact to the Native American sites.

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364

SACRAMENTO, CA 95814

(916) 653-6251

Fax (916) 657-5390

Web Site www.nahc.ca.gove-mail: ds_nahc@pacbell.net

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11 OCT 11 PM 4:12

CALIF. DESERT DISTRICT
MORENO VALLEY, CA

October 5, 2011

Ms. Lynnette Elser

United States Department of the Interior**Bureau of Land Management**

22835 Calle San Juan de Los Lagos

Moreno Valley, CA 92553

Re: SCH#2011094004; NEPA Notice of Intent (NOI) to prepare a Draft Environmental Impact Statement (DEIS) Request for the "Desert Harvest Solar Farm Project;" located in the Chuckwalla Mountains near the Community of Desert Center; eastern Riverside County, California.

Dear Ms. Elser:

The Native American Heritage Commission (NAHC) is the California State 'Trustee Agency' pursuant to Public Resources Code §21070 for the protection of California's Native American Cultural Resources. The NAHC is also a 'reviewing agency' for environmental documents prepared under the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq*), 36 CFR Part 800.3, .5 and are subject to the Tribal and interested Native American consultation as required by the National Historic Preservation Act, as amended (Section 106) (16 U.S.C. 470; Section 106 [f] 110 [f] [k], 304). The provisions of the Native American Graves Protection and Repatriation Act (NAGPRA) (25 U.S.C. 3001-3013) and its implementation (43 CFR Part 10.2), and California Government Code §27491 may apply to this project if Native American human remains are inadvertently discovered.

The NAHC is of the opinion that the federal standards, pursuant to the above-referenced Acts and the Council on Environmental Quality (CSQ; 42 U.S.C. 4371 *et seq*) are similar to and in many cases more stringent with regard to the 'significance' of historic, including Native American items, and archaeological, including Native American items at least equal to the California Environmental Quality Act (CEQA.). In most cases, federal environmental policy require that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Statement (EIS).

The NAHC conducted a Sacred Lands File (SLF) search of its Inventory and Native American cultural resources were not identified in the project area you specified; early and quality consultation with the Native American on the attached list may provide detailed information of sites with which they are aware. The absence of archaeological resources does not preclude their existence.

The NAHC Sacred Lands File Inventory of the Native American Heritage Commission is established by the California Legislature pursuant to California Public Resources Code §§5097.94(a) and 5097.96. The NAHC, pursuant to Appendix B of the Guidelines to the California Environmental Quality Act (CEQA) is designated as the agency with expertise in the areas of issues of cultural significance to California Native American communities. Also, in the

1985 California Appellate Court decision (170 Cal App 3rd 604), the court held that the NAHC has jurisdiction and special expertise, as a state agency, over affected Native American resources, impacted by proposed projects including archaeological, places of religious significance to Native Americans and burial sites

Culturally affiliated tribes are to be consulted to determine possible project impacts pursuant to the National Historic Preservation Act, as amended. Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. The NAHC recommends as part of 'due diligence', that you also contact the nearest Information Center of the California Historical Resources Information System (CHRIS) of the State Historic Preservation Office (SHPO) for other possible recorded sites in or near the APE (contact the Office of Historic Preservation at 916-445-7000).

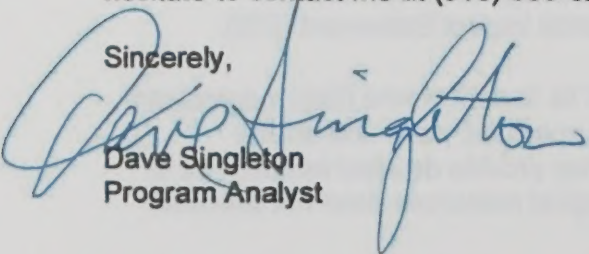
Attached is a list of Native American contacts is attached to assist you that may have knowledge of cultural resources in the project area. It is advisable to contact the persons listed and seek to establish a 'trust' relationship with them; if they cannot supply you with specific information about the impact on cultural resources, they may be able to refer you to another tribe or person knowledgeable of the cultural resources in or near the affected project area.

Lead agencies should consider avoidance, in the case of cultural resources that are discovered. A tribe or Native American individual may be the only source of information about a cultural resource; this is consistent with the NHPA (16 U.S.C. 470 *et seq* Sections. 106, 110, and 304) Section 106 Guidelines amended in 2009. Also, federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful

NEPA regulations provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery. Even though a discovery may be in federal property, California Government Code §27460 should be followed in the event of an accidental discovery of human remains during any groundbreaking activity; in such cases California Government Code §27491 and California Health & Safety Code §7050.5 may apply.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,



Dave Singleton
Program Analyst

Attachment: Native American Contacts list for Consultation

Native American Contacts
Riverside County
October 5, 2011

Cabazon Band of Mission Indians
David Roosevelt, Chairperson
84-245 Indio Springs Cahuilla
Indio , CA 92203-3499
(760) 342-2593
(760) 347-7880 Fax

Joseph R. Benitez (Mike)
P.O. Box 1829 Chemehuevi
Indio , CA 92201
(760) 347-0488
(760) 408-4089 - cell

Ramona Band of Cahuilla Mission Indians
Joseph Hamilton, Chairman
P.O. Box 391670 Cahuilla
Anza , CA 92539
admin@ramonatribe.com
(951) 763-4105
(951) 763-4325 Fax

Chemehuevi Reservation
Charles Wood, Chairperson
P.O. Box 1976 Chemehuevi
Chemehuevi Valley CA 92363
chair1cit@yahoo.com
(760) 858-4301
(760) 858-5400 Fax

Torres-Martinez Desert Cahuilla Indians
Mary Resvaloso, Chairperson
PO Box 1160 Cahuilla
Thermal , CA 92274
mresvaloso@torresmartinez.
(760) 397-0300
(760) 397-8146 Fax

Fort Mojave Indian Tribe
Tim Williams, Chairperson
500 Merriman Ave Mojave
Needles , CA 92363
(760) 629-4591
(760) 629-5767 Fax

Twenty-Nine Palms Band of Mission Indians
Darrell Mike, Chairperson
46-200 Harrison Place Chemehuevi
Coachella , CA 92236
tribal-epa@worldnet.att.net
(760) 775-5566
(760) 808-0409 - cell - EPA
(760) 775-4639 Fax

Colorado River Indian Tribe
Ginger Scott, Museum Curator; George Ray, Coor
26600 Mojave Road Mojave
Parker , AZ 85344 Chemehuevi
crit.museum@yahoo.com
(928) 669-9211-Tribal Office
(928) 669-8970 ext 21
(928) 669-1925 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed CH#2011094004; NEPA Notice of Intent (NOI) to prepare a draft Environmental Impact Statement (DEIS) for the Desert Harvest Solar Farm Project; located about 6 miles north of the Community of Desert Center in the Chckwalla Mountains of eastern Riverside County, California on federal Bureau

Native American Contacts
Riverside County
October 5, 2011

Torres-Martinez Desert Cahuilla Indians
Ernest Morreo
PO Box 1160 Cahuilla
Thermal , CA 92274
maxtm@aol.com
(760) 397-0300
(760) 397-8146 Fax

AhaMaKav Cultural Society, Fort Mojave Indian
Linda Otero, Director
P.O. Box 5990 Mojave
Mohave Valley AZ 86440
(928) 768-4475
LindaOtero@fortmojave.com
(928) 768-7996 Fax

Santa Rosa Band of Mission Indians
John Marcus, Chairwoman
P.O. Box 391820 Cahuilla
Anza , CA 92539
sestrada@
(951) 659-2700
(951) 659-2228 Fax

Augustine Band of Cahuilla Mission Indians
Mary Ann Green, Chairperson
P.O. Box 846 Cahuilla
Coachella , CA 92236
hhaines@augustinetribes.
(760) 398-6180
760-369-7161 - FAX

Morongo Band of Mission Indians
Michael Contreras, Cultural Heritage Prog.
12700 Pumarra Road Cahuilla
Banning , CA 92220 Serrano
(951) 201-1866 - cell
mcontreras@morongo-nsn.
gov
(951) 922-0105 Fax

Torres-Martinez Desert Cahuilla Indians
Diana L. Chihuahua, Vice Chairperson, Cultural
P.O. Box 1160 Cahuilla
Thermal , CA 92274
dianac@torresmartinez.
760) 397-0300, Ext. 1209
(760) 272-9039 - cell (Lisa)
(760) 397-8146 Fax

Cabazon Band of Mission Indians
Judy Stapp, Director of Cultural Affairs
84-245 Indio Springs Cahuilla
Indio , CA 92203-3499
markwardt@cabazonindia
(760) 342-2593
(760) 347-7880 Fax

Agua Caliente Band of Cahuilla Indians THPO
Patricia Tuck, Tribal Historic Preservation Officer
5401 Dinah Shore Drive Cahuilla
Palm Springs, CA 92264
ptuck@augacaliente-nsn.gov
(760) 699-6907
(760) 699-6924- Fax

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Native American Contacts

Riverside County

October 5, 2011

Augustine Band of Cahuilla Mission Indians
Karen Kupcha
P.O. Box 846 Cahuilla
Coachella , CA 92236
(760) 398-6180
916-369-7161 - FAX

Ernest H. Siva
Morongo Band of Mission Indians Tribal Elder
9570 Mias Canyon Road Serrano
Banning , CA 92220 Cahuilla
siva@dishmail.com
(951) 849-4676

Quechan Indian Nation
THPO
P.O. Box 1899 Quechan
Yuma , AZ 85366
b.nash@quechantribe.com
(928) 920-6068 - CELL
(760) 572-2423

Ah-Mut-Pipa Foundation
Preston J. Arrow-weed
P.O. Box 160 Quechan
Bard , CA 92222 Kumeyaay
ahmut@earthlink.net
(928) 388-9456

Cahuilla Band of Indians
Luther Salgado, Sr., , Chairperson
PO Box 391760 Cahuilla
Anza , CA 92539
tribalcouncil@cahuilla.net
915-763-5549

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CH#2011094004; NEPA Notice of Intent (NOI) to prepare a draft Environmental Impact Statement (DEIS) for the Desert Harvest Solar Farm Project;
located about 6 miles north of the Community of Desert Center in the Chckwalla Mountains of eastern Riverside County, California on federal Bureau



Edmund G. Brown Jr.
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Ken Alex
Director

NEPA Notice of Intent
Review and Comment by State Agencies

September 29, 2011

To: Reviewing Agencies

Re: Desert Harvest Solar Farm Project
SCH# 2011094004

Attached for your review and comment is the Notice of Intent (NOI) for the Desert Harvest Solar Farm Project draft Environmental Impact Statement (EIS).

State Responsible agencies must transmit their comments on the scope and content of the EIS, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOI from the Lead Agency. - This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

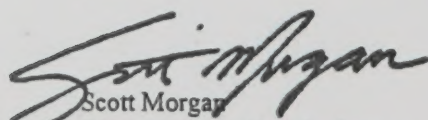
Please direct your comments to:

Lynnette Elser
Bureau of Land Management, U.S. Department of Interior
22835 Calle San Juan de Los Lagos
Moreno Valley, CA 92553

Please provide a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above (2011094004) in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,


Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

RECEIVED
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11 OCT -5 PM 3:05
CALIF. DESERT DISTRICT
MORENO VALLEY, CA

**Document Details Report
State Clearinghouse Data Base**

SCH# 2011094004
Project Title Desert Harvest Solar Farm Project
Lead Agency Bureau of Land Management

Type NOI Notice of Intent

Description The proposed project would be located on BLM-administered lands in Riverside County about 6 miles north of the rural community of Desert Center, California. The overall site layout and generalized land uses would include a substation, an administration building, operations and maintenance facilities, a transmission line, and temporary construction lay down areas, with a total proposed project footprint of ~1,280 acres. The project's 230-kilovolt (kV) generation interconnection transmission line would either be via the First Solar Desert Sunlight 230 kV gen-tie (as a shared facility), or would be located on private and BLM-administered lands and would utilize a planned 230-to 500 kV substation (referred to as the Red Bluff Substation). The Red Bluff Substation would connect the project to the Southern California Edison regional transmission grid.

Lead Agency Contact

Name Lynnette Elser
Agency U.S. Department of Interior, Bureau of Land Management
Phone 951 697-5233 **Fax**
email
Address 22835 Calle San Juan de Los Lagos
City Moreno Valley **State** CA **Zip** 92553

Project Location

County Riverside
City
Region
Cross Streets 6 mi. north of Desert Center
Lat / Long 33° 47' 49" N / 115° 22' 36" W
Parcel No.
Township 4S **Range** 15E **Section** 25-27 **Base**

Proximity to:

Highways Hwy 177
Airports
Railways
Waterways
Schools
Land Use BLM - administered land, CDCA Multiple Use Class M (Moderate)

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects; Other Issues

Reviewing Agencies Department of Conservation; California Energy Commission; Department of Parks and Recreation; Resources, Recycling and Recovery; Department of Water Resources; Department of Fish and Game, Region 6; Native American Heritage Commission; Public Utilities Commission; State Lands Commission; California Highway Patrol; Caltrans, District 8; Department of Toxic Substances Control; Regional Water Quality Control Board, Region 7; Resources Agency

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613

For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH # 2011094

Project Title: Desert Harvest Solar Farm Project**Lead Agency:** Bureau of Land Management - Dept. of Interior**Contact Person:** Lynnette Elser**Mailing Address:** 22835 Calle San Juan de Los Lagos**Phone:** (951) 697-5233**City:** Moreno Valley**Zip:** 92553**County:** Riverside**Project Location:** County: Riverside**City/Nearest Community:** Lake Tamarisk and Desert Center**Cross Streets:** 6 miles north of Desert Center**Zip Code:** 92239**Longitude/Latitude (degrees, minutes and seconds):** 33 ° 47 ' 49 " N / 115 ° 22 ' 36 " W **Total Acres:** 1,280**Assessor's Parcel No.:****Section:** 25 - 27 **Twp.:** 4S **Range:** 15E **Base:****Within 2 Miles:** State Hwy #: 177**Waterways:****Airports:****Railways:****Schools:****Document Type:**

- CEQA: ☐ NOP
☐ Early Cons
☐ Neg Dec
☐ Mit Neg Dec

- ☐ Draft EIR
☐ Supplement/Subsequent EIR
(Prior SCH No.)
Other:

- ☒ NOI
☐ EA
☐ Draft EIS
☐ FONSI

- Other: ☐ Joint Document
☐ Final Document
☐ Other:

Local Action Type:

- ☐ General Plan Update
☐ General Plan Amendment
☐ General Plan Element
☐ Community Plan

- ☐ Specific Plan
☐ Master Plan
☐ Planned Unit Development
☐ Site Plan

- ☐ Rezone
☐ Prezone
☐ Use Permit
☐ Land Division (Sub)

Development Type:

- ☐ Residential: Units _____ Acres _____
☐ Office: Sq.ft. _____ Acres _____ Employees _____
☐ Commercial: Sq.ft. _____ Acres _____ Employees _____
☐ Industrial: Sq.ft. _____ Acres _____ Employees _____
☐ Educational: _____
☐ Recreational: _____
☐ Water Facilities: Type _____ MGD _____

- ☐ Transportation: Type _____
☐ Mining: Mineral _____
☒ Power: Type Solar Photovoltaic MW150
☐ Waste Treatment: Type _____ MGD _____
☐ Hazardous Waste: Type _____
☐ Other: _____

Project Issues Discussed in Document:

- | | | | |
|--|--|---|--|
| ☒ Aesthetic/Visual | ☐ Fiscal | ☒ Recreation/Parks | ☒ Vegetation |
| ☒ Agricultural Land | ☐ Flood Plain/Flooding | ☐ Schools/Universities | ☒ Water Quality |
| ☒ Air Quality | ☐ Forest Land/Fire Hazard | ☐ Septic Systems | ☒ Water Supply/Groundwater |
| ☒ Archeological/Historical | ☒ Geologic/Seismic | ☐ Sewer Capacity | ☒ Wetland/Riparian |
| ☒ Biological Resources | ☒ Minerals | ☒ Soil Erosion/Compaction/Grading | ☒ Growth Inducement |
| ☐ Coastal Zone | ☒ Noise | ☒ Solid Waste | ☒ Land Use |
| ☐ Drainage/Absorption | ☒ Population/Housing Balance | ☒ Toxic/Hazardous | ☒ Cumulative Effects |
| ☐ Economic/Jobs | ☒ Public Services/Facilities | ☒ Traffic/Circulation | ☒ Other: Env. Justice |

Present Land Use/Zoning/General Plan Designation:

BLM-administered land, CDCA Multiple Use Class M (Moderate)

Project Description: (please use a separate page if necessary)

The proposed project would be located on BLM-administered lands in Riverside County about 6 miles north of the rural community of Desert Center, California. The overall site layout and generalized land uses would include a substation, an administration building, operations and maintenance facilities, a transmission line, and temporary construction lay down areas, with a total proposed project footprint of approximately 1,280 acres. The project's 230-kilovolt (kV) generation interconnection transmission line would either be via the First Solar Desert Sunlight 230-kV gen-tie (as a shared facility), or would be located on private and BLM-administered lands and would utilize a planned 230- to 500-kV substation (referred to as the Red Bluff Substation). The Red Bluff Substation would connect the project to the Southern California Edison regional transmission grid.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "X".
If you have already sent your document to the agency please denote that with an "S".

☒ Air Resources Board	☒ Office of Emergency Services
☐ Boating & Waterways, Department of	☒ Office of Historic Preservation
☒ California Highway Patrol	☐ Office of Public School Construction
☒ Caltrans District # <u>8</u>	☒ Parks & Recreation, Department of
☐ Caltrans Division of Aeronautics	☐ Pesticide Regulation, Department of
☐ Caltrans Planning	☒ Public Utilities Commission
☐ Central Valley Flood Protection Board	☒ Regional WQCB # <u>7</u>
☐ Coachella Valley Mtns. Conservancy	☐ Resources Agency
☐ Coastal Commission	☐ S.F. Bay Conservation & Development Comm.
☐ Colorado River Board	☐ San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
☒ Conservation, Department of	☐ San Joaquin River Conservancy
☐ Corrections, Department of	☐ Santa Monica Mtns. Conservancy
☐ Delta Protection Commission	☐ State Lands Commission
☐ Education, Department of	☐ SWRCB: Clean Water Grants
☒ Energy Commission	☐ SWRCB: Water Quality
☒ Fish & Game Region # <u>6</u>	☐ SWRCB: Water Rights
☐ Food & Agriculture, Department of	☐ Tahoe Regional Planning Agency
☐ Forestry and Fire Protection, Department of	☐ Toxic Substances Control, Department of
☐ General Services, Department of	☐ Water Resources, Department of
☐ Health Services, Department of	☐ Other: _____
☐ Housing & Community Development	☐ Other: _____
☒ Integrated Waste Management Board	
☒ Native American Heritage Commission	

Local Public Review Period (to be filled in by lead agency)

Starting Date September 15, 2011

Ending Date October 17, 2011

Lead Agency (Complete if applicable):

Consulting Firm: Aspen Environmental Group
Address: 235 Montgomery St. Suite 935
City/State/Zip: San Francisco, CA 94104
Contact: Marisa Mitchell
Phone: 415-955-4775 x 206

Applicant: enXco
Address: 4000 Executive Parkway Ste 100S
City/State/Zip: San Ramon, CA 94583
Phone: 925-365-3731

Signature of Lead Agency Representative: _____

Date: 9/27/2011

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

Distribution List

add

County: Riverside

SCH#

2011084004

Resources Agency

Resources Agency
Bill Gayou

State of Boating & Waterways
Sotelo

California Coastal
Commission
Beth A. Fuchs

Colorado River Board
R. Zimmerman

State of Conservation
athan Martis

California Energy
Commission
Knight

Fire
Robertson

Central Valley Flood
Protection Board
es Herota

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Preservation
Parsons

State of Parks & Recreation
Environmental Stewardship
Ion

California Department of
Resources, Recycling &
Waste Management
O'Leary

Bay Conservation &
Development
Comm.
McAdam

State of Water Resources
Resources Agency
Bill Gayou

San Francisco

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State of Fish & Game
Wild Game
Environmental Services Division

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Jeff Drongesen

☐ Fish & Game Region 3
Charles Armor

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Leslie Newton-Reed
Habitat Conservation Program

☒ Fish & Game Region 6
Gabrina Gatchel
Habitat Conservation Program

☐ Fish & Game Region 6 I/M
Brad Henderson
Inyo/Mono, Habitat Conservation
Program

☐ Dept. of Fish & Game M
George Isaac
Marine Region

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Dept. of Food and Agriculture

☐ Depart. of General Services
Public School Construction

☐ Dept. of General Services
Anna Garbeff
Environmental Services Section

☐ Dept. of Public Health
Bridgette Binning
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☐ Governor's Office of Planning
& Research
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Housing Policy Division

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North Coast Region (1)

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Environmental Document
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San Francisco Bay Region (2)

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Central Valley Region (5)
Fresno Branch Office

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Lahontan Region (6)

☐ RWQCB 6V
Lahontan Region (6)
Victorville Branch Office

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Colorado River Basin Region (7)

☐ RWQCB 8
Santa Ana Region (8)

☐ RWQCB 9
San Diego Region (9)

☐ Other _____



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

OCT 17 2011

Lynnette Elser, Planning and Environmental Coordinator
BLM California Desert District Office
22835 Calle San Juan de Los Lagos
Moreno Valley, California 92553

Subject: Notice of Intent to Prepare an Environmental Impact Statement for the Proposed enXco Desert Harvest Solar Farm Project, Riverside County, California and Possible Land Use Plan Amendment to the California Desert Conservation Area Plan

Dear Ms. Elser:

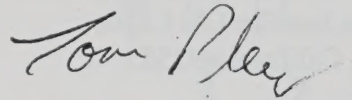
The U.S. Environmental Protection Agency has reviewed the September 15, 2011 Notice of Intent to prepare an Environmental Impact Statement for the Proposed enXco Desert Harvest Solar Farm Project, Riverside County, California (CACA 49491), which may include an amendment to the California Desert Conservation Area Plan. Our comments are provided pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508) and Section 309 of the Clean Air Act.

The EPA supports increasing the development of renewable energy resources, as recommended in the National Energy Policy Act of 2005. Using renewable energy resources such as solar power can help the nation meet its energy requirements without generating greenhouse gas emissions. EPA believes that early analyses of key resource areas and the identification of compensatory mitigation lands should be completed as early as possible to determine a project's viability and avoid potential project delays. In light of large influx of renewable energy projects in the Riverside East Solar Energy Zone (SEZ), we are particularly concerned about direct and cumulative impacts to vulnerable aquatic, cultural, and biological resources, including threatened and endangered species.

Further, as the proposed project is located within the Desert Renewable Energy Conservation Plan study area as well as within the proposed Riverside East SEZ identified in the Solar Programmatic EIS, we believe it is imperative that the DEIS discuss how the proposed project will demonstrate consistency with these ongoing efforts.

We appreciate the opportunity to review this NOI and are available to discuss our comments. Please send two hard copies of the Draft EIS and one CD ROM copy to this office at the same time it is officially filed with our Washington D.C. Office. If you have any questions, please contact me at (415) 972-3238 or plenys.tom@epa.gov.

Sincerely,

A handwritten signature in cursive script, appearing to read "Tom Plenys".

Tom Plenys
Environmental Review Office
Communities and Ecosystems Division

Enclosure: EPA's Detailed Comments

US EPA DETAILED COMMENTS ON THE NOTICE OF INTENT TO PREPARE AN ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED ENEXCO DESERT HARVEST SOLAR FARM PROJECT AND POSSIBLE LAND USE PLAN AMENDMENT TO THE CALIFORNIA DESERT CONSERVATION AREA PLAN, RIVERSIDE COUNTY, CALIFORNIA OCTOBER 17, 2011

Project Description

EnXco has requested a right of way authorization from the Bureau of Land Management to construct, operate, maintain, and decommission a 150-megawatt (MW) photovoltaic solar energy facility and ancillary facilities in Riverside County, California (CACA 49491). The proposed 150 MW PV facility would include: PV arrays, access roads, an electrical substation, an administration building, operations and maintenance facilities, a transmission line and temporary construction lay down areas. In addition, the project's 230-kilovolt (kV) generation interconnection transmission line would either be via the First Solar Desert Sunlight 230-kV gen-tie (as a shared facility), or would be located on private and BLM-administered lands and would utilize a planned 230- to 500-kV proposed Red Bluff Substation. The project would be constructed on approximately 1,280 acres of public lands. The project site is located approximately 6 miles north of Desert Center California and lies due south from the previously approved First Solar Desert Sunlight Solar Farm project.

Statement of Purpose and Need

The Draft Environmental Impact Statement should clearly identify the underlying purpose and need to which the BLM is responding in proposing the alternatives (40 CFR 1502.13). The *purpose* of the proposed action is typically the specific objectives of the activity, while the *need* for the proposed action may be to eliminate a broader underlying problem or take advantage of an opportunity.

Recommendation:

The purpose and need should be a clear, objective statement of the rationale for the proposed project. The DEIS should discuss the proposed project in the context of the larger energy market that this project would serve and discuss how the project will assist the state in meeting its renewable energy portfolio standards and goals.

Alternatives Analysis

The National Environmental Policy Act requires evaluation of reasonable alternatives, including those that may not be within the jurisdiction of the lead agency (40 CFR Section 1502.14(c)). A robust range of alternatives will include options for avoiding significant environmental impacts. The DEIS should provide a clear discussion of the reasons for the elimination of alternatives which are not evaluated in detail. A range of reasonable alternatives should include alternative sites and technologies; alternatives with reduced acreage, reduced MWs, or modified footprints; as well as alternatives that identify and avoid environmentally sensitive areas or areas with potential use conflicts. The alternatives analysis should describe the approach used to identify environmentally sensitive areas and describe the process that was used to designate them in terms of sensitivity (low, medium, and high).

The environmental impacts of the proposal and alternatives should be presented in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public (40 CFR 1502.14). The potential environmental impacts of each alternative should be quantified to the greatest extent possible (e.g., acres of pristine desert impacted, tons per year of emissions produced).

Recommendations:

The DEIS should describe how each alternative was developed, how it addresses each project objective, and how it will be implemented. The alternatives analysis should include a discussion of a reduced acreage, reduced MW and modified footprint alternatives, as well as alternative sites and generating technologies, including different types of solar technologies, and describe the benefits associated with the proposed technology.

The DEIS should clearly describe the rationale used to determine whether impacts of an alternative are significant or not. Thresholds of significance should be determined by considering the context and intensity of an action and its effects (40 CFR 1508.27).

The EPA strongly encourages BLM and other interested parties to pursue the siting of renewable energy projects on disturbed, degraded, and contaminated sites, including fallow or abandoned agricultural lands before considering large tracts of undisturbed public lands.

The EPA recommends that the DEIS identify and analyze an *environmentally preferred alternative*. This alternative should consider options such as downsizing the proposed project within the project area and/or relocating sections/components of the project to other areas, including private land, to avoid or reduce environmental impacts.

The EPA recommends consideration of a desert or ephemeral wash avoidance alternative for full evaluation in the DEIS.

Water Resources

Water Supply and Water Quality

PV electrical generation facilities generally need much less water than solar thermal plants. The DEIS should estimate the quantity of water the project will require and describe the source of this water and potential effects on other water users and natural resources in the project's area of influence. The DEIS should clearly depict reasonably foreseeable direct, indirect, and cumulative impacts to this resource. If groundwater is to be used, the potentially-affected groundwater basin should be identified and any potential for subsidence and impacts to springs or other open water bodies and biologic resources should be analyzed. The DEIS should include:

- A discussion of the amount of water needed for the proposed PV electrical generation facility and where this water will be obtained.
- A discussion of availability of groundwater within the basin and annual recharge rates. A description of the water right permitting process and the status of water rights within that basin, including an analysis of whether water rights have been over-allocated.
- A discussion of cumulative impacts to groundwater supply within the hydrographic basin, including impacts from other large-scale solar installations that have also been proposed.
- An analysis of different types of technology that can be used to minimize or recycle water.
- A discussion of whether it would be feasible to use other sources of water, including potable water, irrigation canal water, wastewater or deep-aquifer water.
- An analysis of the potential for alternatives to cause adverse aquatic impacts such as impacts to water quality and aquatic habitats.

Recommendations:

The DEIS should address the potential effects of project discharges, if any, on surface water quality. Specific discharges should be identified and potential effects of discharges on designated beneficial uses of affected waters should be analyzed. If the facility is a zero discharge facility, the DEIS should disclose the amount of process water that would be disposed of onsite and explain methods of onsite containment.

The EPA strongly encourages the BLM to include in the DEIS a description of all water conservation measures that will be implemented to reduce water demands. Project designs should maximize conservation measures such as appropriate use or recycled water for landscaping and industry, xeric landscaping and water conservation education.

The DEIS should describe water reliability for the proposed project and clarify how existing and/or proposed sources may be affected by climate change. At a minimum, the EPA expects a qualitative discussion of impacts to water supply and the adaptability of the project to these changes.

Clean Water Act Section 404

The project applicant should coordinate with the U.S. Army Corps of Engineers to determine if the proposed project requires a Section 404 permit under the Clean Water Act. Section 404 regulates the discharge of dredged or fill material into waters of the United States (WOUS), including wetlands and other *special aquatic sites*. The DEIS should describe all WOUS that could be affected by the project alternatives, and include maps that clearly identify all waters within the project area. In addition, the EPA suggests that the BLM include a jurisdictional delineation for all WOUS, including ephemeral drainages, in accordance with the 1987 *Corps of Engineers Wetlands Delineation Manual* and the December 2006 *Arid West Region Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*. A jurisdictional delineation will confirm the presence or absence of WOUS in the project area and help determine impact avoidance or if state and federal permits would be required for activities that affect WOUS.

If a Section 404 permit is required, the EPA will review the project for compliance with Section 404(b)(1) Guidelines to ensure any permitted discharge into WOUS must be the least environmentally damaging practicable alternative available to achieve the project purpose. If needed, the DEIS should include an evaluation of the project alternatives within this context in order to demonstrate the project's compliance with the 404(b)(1) Guidelines. Aligning NEPA and CWA Section 404 requirements will streamline the permitting process if a permit is required.

Recommendations:

The DEIS should include a jurisdictional delineation for all WOUS, including ephemeral drainages, in accordance with the 1987 *Corps of Engineers Wetlands Delineation Manual* and the December 2006 *Arid West Region Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*. A jurisdictional delineation will confirm the presence of WOUS in the project area and help determine impact avoidance or if state and federal permits would be required for activities that affect WOUS.

The DEIS should describe all WOUS that could be affected by the project alternatives, and include maps that clearly identify all WOUS within the project area. The discussion should include acreages and channel lengths, habitat types, values, and functions of these WOUS.

Drainages, Ephemeral Washes, and Floodplains

The DEIS should describe the original (natural) drainage patterns in the project locale, as well as the drainage patterns of the area during project operations, and identify whether any components of the proposed project are within a 50 or 100-year floodplain. The DEIS should consider the upstream and downstream reach of waters and their importance in this landscape. Natural washes perform a diversity of hydrologic, biochemical, and geochemical functions that directly affect the integrity and functional condition of higher-order waters downstream. Healthy ephemeral waters with characteristic plant communities control rates of sediment deposition and dissipate the energy associated with flood flows. Ephemeral washes also provide habitat for breeding, shelter, foraging and movement of wildlife. Many plant populations are dependent on these aquatic ecosystems and adapted to their unique conditions.

Resources in the desert are particularly vulnerable to utility-scale solar energy development. These resources are being cumulatively impacted by the numerous large-scale solar development projects being proposed in the desert. The potential damage that could result from disturbance of such washes includes alterations to the hydrological functions that natural channels provide in arid ecosystems, including adequate capacity for flood control, energy dissipation and sediment movement, as well as impacts to valuable habitat for desert species. For these reasons, the EPA recommends that a desert or ephemeral wash avoidance alternative be created, which would be consistent with the goals and objectives of NEPA to promote efforts which will prevent or eliminate damage to the environment and biosphere (42 USC § 4321), and to attain the widest range of beneficial uses of the environment without degradation (42 USC § 4331).

Recommendations:

The EPA recommends that the DEIS characterize the functions of any aquatic features that could be affected by the proposed project, including those determined not to constitute waters of the U.S., and describe how the proponent will avoid, minimize and mitigate such impacts.

The EPA recommends development of a desert or ephemeral wash avoidance alternative for full evaluation in the DEIS.

To avoid and minimize direct and indirect impacts to desert washes (such as erosion, migration of channels and local scour), the EPA recommends:

- Avoid placement of support structures in washes;
- Utilize existing natural drainage channels on site and more natural features, such as earthen berms or channels, rather than concrete-lined channels;
- Commit to the use of natural washes, in their present location and natural form and including adequate natural buffers, for flood control to the maximum extent practicable;
- Minimize the number of road crossings over washes and designing necessary crossings to provide adequate flow-through during storm events; and
- Avoid complete clearing and grading of the site by evaluating the mounting of PV panels at sufficient height above ground to maintain natural vegetation and reduce impacts to drainages.

Discuss the availability of sufficient compensation lands within the project's watershed to replace desert wash functions lost on the project site.

To avoid clearing and grading of the site, we recommend evaluating mounting PV panels at sufficient height above ground to maintain natural vegetation and preserve the site's natural drainage. It is our understanding that other PV solar companies have proposed such designs which can reduce the need for site clearing and grading.

Recommendation:

The DEIS should evaluate mounting PV panels at sufficient height above ground to maintain natural vegetation and minimize drainage disturbance. Quantify acreage that would not require clearing and grading as a result. Compare these results to other alternatives, and incorporate project design changes into site design and conditions of certification.

Construction Stormwater Discharge Permit

The California State Water Resources Control board requires owner/operators to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity if the project will disturb more than one acre of soil. Given the disturbance area for this project, California State Water Resources Control Board General Permit associated with construction activity Construction General Permit Order 2009-0009-DWQ would likely be required. Additionally, a Stormwater Pollution Prevention Plan, that includes erosion control measures, would need to be generated for the project and implemented on-site.

The SWPPP would include the elements described in the Construction General Permit, including a site map(s) showing the construction site perimeter, existing and proposed buildings, lots, roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP also would list Best Management Practices, including erosion control BMPs that would be used to protect stormwater runoff, and include a description of required monitoring programs.

Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Section A of the Construction General Permit describes the elements that must be contained in a SWPPP. Guidance from other documents, such as the EPA document entitled "Developing Your Stormwater Pollution Prevention Plan: A Guide for Construction Sites" also could be used in the development of the SWPPP.

Recommendation:

The EPA recommends that the applicant determine the need for a California State Water Resources Control Board General Permit associated with construction activity Construction General Permit Order 2009-0009-DWQ. If such a permit is required, include a description of the proposed stormwater pollution control and mitigation measures in the DEIS.

Biological Resources and Habitat

The DEIS should identify all petitioned and listed threatened and endangered species and critical habitat that might occur within the project area. The document should identify and quantify which species or critical habitat might be directly, indirectly, or cumulatively affected by each alternative and mitigate impacts to these species. Emphasis should be placed on the protection and recovery of species due to their status or potential status under the Endangered Species Act. For this project, EPA is concerned regarding potential impacts to foraging and nesting habitat for a variety of species including, but not

limited to, desert tortoise, fringe toed lizards, burrowing owls, migratory birds and raptors. We recommend ensuring best practices are utilized to survey and adequately protect desert tortoises in light of the recent findings of significantly higher numbers of desert tortoises than initially surveyed at the Ivanpah Solar Electric Generating System site.

Recommendations

The EPA recommends that the BLM consult with the U.S. Fish and Wildlife Service and prepare a Biological Opinion under Section 7 of the ESA for all threatened or endangered species present.

We also recommend that BLM coordinate across field offices and with USFWS and California Department of Fish and Game to ensure that current and consistent surveying, monitoring, and reporting protocols are applied in protection and mitigation efforts.

The DEIS should provide a recent status update of this report if these actions have been or will be undertaken. Analysis of impacts and mitigation on covered species should include:

- Baseline conditions of habitats and populations of the covered species.
- A clear description of how avoidance, mitigation and conservation measures will protect and encourage the recovery of the covered species and their habitats in the project area.
- Monitoring, reporting and adaptive management efforts to ensure species and habitat conservation effectiveness.

Discuss the need for monitoring, mitigation, and if applicable, translocation management plans for the sensitive biological resources, approved by the BLM and the biological resource management agencies. This would include, but not limited to, an Avian Protection Plan, a Raven Monitoring, Management, and Control Plan, Burrowing Owl Mitigation, Monitoring and Translocation Plan, Desert Tortoise Relocation/Translocation Plan, Desert Tortoise Compensatory Mitigation Plan, Special – Status Plant Impact Avoidance and Mitigation Plan, and Management Plan for Sand Dune/Fringed-Toed Lizard.

The DEIS should include assurances that the design of the transmission line would be in compliance with current standards and practices that reduce the potential for raptor fatalities and injuries. The commonly referenced source of such design practices is found within the Avian Power Line Interaction Committee documents: Suggested Practices for Avian Protection on Power Lines: State of the Art in 2006 manual and Mitigating Bird Collisions with Power Lines: The State of the Art in 1994. Also include a requirement for an Avian Protection Plan to be developed using the 2005 Avian Power Line Interaction Committee and U.S. Fish and Wildlife Service Avian Protection Plan Guidelines.

The EPA is concerned about habitat fragmentation and obstructions for wildlife movement resulting from the proposed Project since it lies between Joshua Tree National Monument, north of the project, and the Chuckwalla Desert Wildlife Management Area, south of the project.

Recommendation:

The DEIS should describe the potential for habitat fragmentation and obstructions for wildlife movement from the construction of this project and other utility scale renewable energy projects in the eastern Riverside County area.

EPA is also concerned that, at this stage, it is not clear that sufficient compensatory lands are available for potential resource impacts. If the applicant is to acquire compensation lands, the location(s) and management plans for these lands should be discussed in the DEIS. In light of the renewable energy projects and potential development activities in the Chuckwalla Valley area, available land to adequately compensate for environmental impacts to resources such as state jurisdictional waters, desert dry wash woodlands, and desert tortoise, may serve as a limiting factor for development.

Recommendations:

Incorporate, into the DEIS, information on the compensatory mitigation proposals (including quantification of acreages, estimates of species protected, costs to acquire compensatory lands, etc.) for unavoidable impacts to waters of the State and biological resources such as desert tortoise.

Identify compensatory mitigation lands or quantify, in the DEIS, available lands for compensatory habitat mitigation for this project, as well as reasonably foreseeable projects in the greater Chuckwalla Valley watershed. Specify, in the DEIS, provisions that will ensure habitat selected for compensatory mitigation will be protected in perpetuity.

Incorporate, into the DEIS, mitigation, monitoring, and reporting measures that result from consultation with the USFWS and California Department of Fish and Game, and that incorporate lessons learned from other solar projects and recently released guidances to avoid and minimize adverse effects to sensitive biological resources, including habitat for desert tortoise.

Discuss mitigation ratios for tortoise habitat and how these relate to the mitigation ratios recommended by other agencies, as well as how they relate to mitigation ratios used for other renewable energy projects in California and Nevada.

The EPA is also concerned about the potential impact of construction, installation, and maintenance activities (deep trenching, grading, filling, and fencing) on habitat. The DEIS should describe the extent of these activities and the associated impacts on habitat and threatened and endangered species. The EPA is also aware that shade from the PV panels could impact vegetation and/or species in the project area. We encourage habitat conservation alternatives that avoid and protect high value habitat and create or preserve linkages between habitat areas to better conserve the covered species.

Recommendations:

The DEIS should indicate what measures will be taken to protect important wildlife habitat areas from potential adverse effects of proposed covered activities.

The DEIS should discuss the impacts associated with an increase of shade in the desert environment on vegetation and/or species.

The DEIS should discuss the impacts associated with constructing fences around the project site(s), and consider whether there are options that could facilitate better protection of covered species.

Invasive Species

Executive Order 13112, *Invasive Species* (February 3, 1999), mandates that federal agencies take actions to prevent the introduction of invasive species, provide for their control, and minimize the economic, ecological, and human health impacts that invasive species cause. Executive Order 13112 also calls for the restoration of native plants and tree species. If the proposed project will entail new landscaping, the DEIS should describe how the project will meet the requirements of Executive Order 13112.

Recommendation:

The DEIS should include an invasive plant management plan to monitor and control noxious weeds.

Cumulative and Indirect Impacts

The cumulative impacts analysis should identify how resources, ecosystems, and communities in the vicinity of the project have already been, or will be, affected by past, present, or future activities in the project area. These resources should be characterized in terms of their response to change and capacity to withstand stresses. Trends data should be used to establish a baseline for the affected resources, to evaluate the significance of historical degradation, and to predict the environmental effects of the project components.

For the cumulative impacts assessment, we recommend focusing on resources of concern or resources that are “at risk” and/or are significantly impacted by the proposed project, before mitigation. For this project, the BLM should conduct a thorough assessment of the cumulative impacts to aquatic and biological resources, including impacts to desert tortoise, especially in the context of the renewable energy developments occurring and proposed in the eastern Riverside County area. As mentioned, cumulative impacts to desert washes and ecosystems are occurring and will continue to occur from multiple large solar installations in the desert, therefore cumulative impacts to this resource should be thoroughly discussed for this project as well.

The EPA assisted in the preparation of a guidance document for assessing cumulative impacts in California that we find to be very useful. While this guidance was prepared for transportation projects in California, the principles and the 8-step process outlined therein can be applied to other types of projects and offers a systematic way to analyze cumulative impacts for a project. The guidance is available at: http://www.dot.ca.gov/ser/cumulative_guidance/purpose.htm. In accordance with this guidance, the EPA recommends that the DEIS identify which resources are analyzed, which ones are not, and why. For each resource analyzed, the DEIS should:

- Identify the current condition of the resource as a measure of past impacts. For example, the percentage of species habitat lost to date.
- Identify the trend in the condition of the resource as a measure of present impacts. For example, the health of the resource is improving, declining, or in stasis.
- Identify all on-going, planned, and reasonably foreseeable projects in the study area that may contribute to cumulative impacts.
- Identify the future condition of the resource based on an analysis of impacts from reasonably foreseeable projects or actions added to existing conditions and current trends.

- Assess the cumulative impacts contribution of the proposed alternatives to the long-term health of the resource, and provide a specific measure for the projected impact from the proposed alternatives.
- When cumulative impacts are identified for a resource, mitigation should be proposed.
- Disclose the parties that would be responsible for avoiding, minimizing, and mitigating those adverse impacts.
- Identify opportunities to avoid and minimize impacts, including working with other entities.

Recommendations:

The DEIS should consider the cumulative impacts associated with multiple renewable energy and other development projects proposed in the eastern Riverside County area and the potential impacts on various resources including: water supply, endangered species, and habitat.

The BLM and project proponents should conduct a regional assessment of resource impacts, given the number of projects under construction or planned for the region.

As an indirect result of providing additional power, it can be anticipated that these projects will allow for development and population growth to occur in those areas that receive the generated electricity.

Recommendation:

The DEIS should describe the reasonably foreseeable future land use and associated impacts that will result from the additional power supply. The document should provide an estimate of the amount of growth, its likely location, and the biological and environmental resources at risk.

Consistency of the Desert Harvest Project with the California Desert Renewable Energy Conservation Plan and the Solar PEIS

The California DRECP, scheduled for completion in December 2012, is intended to advance State and federal conservation goals in the desert regions while also facilitating the timely permitting of renewable energy projects in California. The DRECP will include a strategy that identifies and maps areas for renewable energy development and areas for long-term natural resource conservation. The Solar Programmatic EIS, scheduled for completion in Summer 2012, is being developed by the DOE and the BLM and is intended to apply to all pending and future solar energy development applications. The Desert Harvest project is located in the DRECP boundary area and in one of the Solar Energy Zones identified in the PEIS, the Riverside East Solar Energy Zone. The EPA supports both the California DRECP and the Solar PEIS. We are concerned, however, that there may be potential conflicts between these programmatic documents and the Desert Harvest Project, and that these conflicts may not be recognized until after all the documents have been published.

Recommendation:

We recommend that BLM elaborate on the DRECP and Solar PEIS in the DEIS, and include up-to-date maps illustrating the current boundaries and conceptual alternatives. The DEIS should acknowledge that additional requirements and/or conditions may apply under the DRECP and the Solar PEIS.

Climate Change

Scientific evidence supports the concern that continued increases in greenhouse gas emissions resulting from human activities will contribute to climate change. Global warming is caused by emissions of carbon dioxide and other heat-trapping gases. On December 7, 2009, the EPA determined that emissions of GHGs contribute to air pollution that “endangers public health and welfare” within the meaning of the Clean Air Act. One report indicates that observed changes in temperature, sea level, precipitation regime, fire frequency, and agricultural and ecological systems reveal that California is already experiencing the measurable effects of climate change¹. The report indicates that climate change could result in the following changes in California: poor air quality; more severe heat; increased wildfires; shifting vegetation; declining forest productivity; decreased spring snowpack; water shortages; a potential reduction in hydropower; a loss in winter recreation; agricultural damages from heat, pests, pathogens, and weeds; and rising sea levels resulting in shrinking beaches and increased coastal floods.

Recommendations:

The DEIS should consider how climate change could potentially influence the proposed project, specifically within sensitive areas, and assess how the projected impacts could be exacerbated by climate change.

The DEIS should quantify and disclose the anticipated climate change *benefits* of solar energy. We suggest quantifying greenhouse gas emissions from different types of generating facilities including solar, geothermal, natural gas, coal-burning, and nuclear and compiling and comparing these values.

Air Quality

The DEIS should provide a detailed discussion of ambient air conditions (baseline or existing conditions), National Ambient Air Quality Standards, criteria pollutant nonattainment areas, and potential air quality impacts of the proposed projects (including cumulative and indirect impacts). Such an evaluation is necessary to assure compliance with State and Federal air quality regulations, and to disclose the potential impacts from temporary or cumulative degradation of air quality.

The DEIS should describe and estimate air emissions from potential construction and maintenance activities, as well as proposed mitigation measures to minimize those emissions. EPA recommends an evaluation of the following measures to reduce emissions of criteria air pollutants and hazardous air pollutants (air toxics).

Recommendations:

- *Existing Conditions* – The DEIS should provide a detailed discussion of ambient air conditions, National Ambient Air Quality Standards, and criteria pollutant nonattainment areas in all areas considered for solar development.
- *Quantify Emissions* – The DEIS should estimate emissions of criteria pollutants from the proposed projects and discuss the timeframe for release of these emissions over the lifespan

¹ Moser, Susie, Guido Franco, Sarah Pittiglio, Wendy Chou, Dan Cayan. 2009. The Future Is Now: An Update on Climate Change Science Impacts and Response Options for California. California Energy Commission, PIER Energy-Related Environmental Research Program. CEC-500-2008-071.

of the projects. The DEIS should describe and estimate emissions from potential construction activities, as well as proposed mitigation measures to minimize these emissions.

- *Specify Emission Sources* – The DEIS should specify the emission sources by pollutant from mobile sources, stationary sources, and ground disturbance. This source specific information should be used to identify appropriate mitigation measures and areas in need of the greatest attention.
- *Construction Emissions Mitigation Plan* – The DEIS should include a draft Construction Emissions Mitigation Plan and ultimately adopt this plan in the Record of Decision. In addition to all applicable local, state, or federal requirements, we recommend the following control measures (Fugitive Dust, Mobile and Stationary Source and Administrative) be included in the Construction Emissions Mitigation Plan in order to reduce impacts associated with emissions of particulate matter and other toxics from construction-related activities:
- *Fugitive Dust Source Controls*: The DEIS should identify the need for a Fugitive Dust Control Plan to reduce Particulate Matter 10 and Fine Particulate Matter 2.5 emissions during construction and operations. We recommend that the plan include these general commitments:
 - Stabilize heavily used unpaved construction roads with a non-toxic soil stabilizer or soil weighting agent that will not result in loss of vegetation, or increase other environmental impacts.
 - During grading use water, as necessary, on disturbed areas in construction sites to control visible plumes.
 - Vehicle Speed
 - Limit speeds to 25 miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions.
 - Limit speeds to 10 miles per hour or less on unpaved areas within construction sites on unstabilized (and unpaved) roads.
 - Post visible speed limit signs at construction site entrances.
 - Inspect and wash construction equipment vehicle tires, as necessary, so they are free of dirt before entering paved roadways, if applicable.
 - Provide gravel ramps of at least 20 feet in length at tire washing/cleaning stations, and ensure construction vehicles exit construction sites through treated entrance roadways, unless an alternative route has been approved by appropriate lead agencies, if applicable.
 - Use sandbags or equivalent effective measures to prevent run-off to roadways in construction areas adjacent to paved roadways. Ensure consistency with the project's Storm Water Pollution Prevention Plan, if such a plan is required for the project
 - Sweep the first 500 feet of paved roads exiting construction sites, other unpaved roads en route from the construction site, or construction staging areas whenever dirt or runoff from construction activity is visible on paved roads, or at least twice daily (less during periods of precipitation).
 - Stabilize disturbed soils (after active construction activities are completed) with a non-toxic soil stabilizer, soil weighting agent, or other approved soil stabilizing method.
 - Cover or treat soil storage piles with appropriate dust suppressant compounds and disturbed areas that remain inactive for longer than 10 days. Provide vehicles (used to

transport solid bulk material on public roadways and that have potential to cause visible emissions) with covers. Alternatively, sufficiently wet and load materials onto the trucks in a manner to provide at least one foot of freeboard.

- Use wind erosion control techniques (such as windbreaks, water, chemical dust suppressants, and/or vegetation) where soils are disturbed in construction, access and maintenance routes, and materials stock pile areas. Keep related windbreaks in place until the soil is stabilized or permanently covered with vegetation.
- *Mobile and Stationary Source Controls:*
 - If practicable, lease new, clean equipment meeting the most stringent of applicable Federal² or State Standards³. In general, commit to the best available emissions control technology. Tier 4 engines should be used for project construction equipment to the maximum extent feasible⁴.
 - Where Tier 4 engines are not available, use construction diesel engines with a rating of 50 hp or higher that meet, at a minimum, the Tier 3 California Emission Standards for Off-Road Compression-Ignition Engines⁵, unless such engines are not available.
 - Where Tier 3 engine is not available for off-road equipment larger than 100 hp, use a Tier 2 engine, or an engine equipped with retrofit controls to reduce exhaust emissions of nitrogen oxides and diesel particulate matter to no more than Tier 2 levels.
 - Consider using electric vehicles, natural gas, biodiesel, or other alternative fuels during construction and operation phases to reduce the project's criteria and greenhouse gas emissions.
 - Plan construction scheduling to minimize vehicle trips.
 - Limit idling of heavy equipment to less than 5 minutes and verify through unscheduled inspections.
 - Maintain and tune engines per manufacturer's specifications to perform at CARB and/or EPA certification levels, prevent tampering, and conduct unscheduled inspections to ensure these measures are followed.
- *Administrative controls:*
 - Develop a construction traffic and parking management plan that maintains traffic flow and plan construction to minimize vehicle trips.
 - Identify any sensitive receptors in the project area, such as children, elderly, and infirmed, and specify the means by which you will minimize impacts to these populations (e.g. locate construction equipment and staging zones away from sensitive receptors and building air intakes).
 - Include provisions for monitoring fugitive dust in the fugitive dust control plan and initiate increased mitigation measures to abate any visible dust plumes.

² EPA's website for nonroad mobile sources is <http://www.epa.gov/nonroad/>.

³ For California, see ARB emissions standards, see: <http://www.arb.ca.gov/msprog/offroad/offroad.htm>.

⁴ Diesel engines < 25 hp rated power started phasing in Tier 4 Model Years in 2008. Larger Tier 4 diesel engines will be phased in depending on the rated power (e.g., 25 hp - <75 hp: 2013; 75 hp - < 175 hp: 2012-2013; 175 hp - < 750 hp: 2011 - 2013; and ≥ 750 hp 2011- 2015).

⁵ as specified in California Code of Regulations, Title 13, section 2423(b)(1)

Hazardous Materials/Hazardous Waste/Solid Waste

The DEIS should address potential direct, indirect and cumulative impacts of hazardous waste from construction and operation of the proposed facility. The document should identify projected hazardous waste types and volumes, and expected storage, disposal, and management plans. It should address the applicability of state and federal hazardous waste requirements. Appropriate mitigation should be evaluated, including measures to minimize the generation of hazardous waste (i.e., hazardous waste minimization). Alternate industrial processes using less toxic materials should be evaluated as mitigation since such processes could reduce the volume or toxicity of hazardous materials requiring management and disposal as hazardous waste.

PV Production/Recycling

PV production can address the full product life cycle, from raw material sourcing through end of life collection and reuse or recycling. PV companies can minimize their environmental impacts during raw material extraction and minimize the amount of rare materials used in the product. PV manufacturing facilities exist that are zero waste and have no air or water emissions. PV companies can facilitate future material recovery for reuse or recycling. Several solar companies have developed approaches to recycling solar modules that enable treatment and processing of PV module components into new modules or other projects. Solar companies can facilitate collection and recycling through buy-back programs or collection and recycling guarantees. Several companies provide recycling programs that pay all packaging, transportation, and recycling costs.

Recommendations:

EPA recommends that the proponent strive to address the full product life cycle by sourcing PV components from a company that: 1) minimizes environmental impacts during raw material extraction; 2) manufactures PV panels in a zero waste facility; 3) provides future PV disassembly for material recovery for reuse and recycling; and 4) minimizes the carbon footprint associated with the manufacture and transport of PV panels.

Project Decommissioning, Site Restoration and Financial Assurance

Desert ecosystems have evolved over millennia to withstand severe conditions. Decommissioning and site restoration in an arid environment may take much longer and require more extensive intervention than in a more temperate region. For the Mojave Desert, sufficient moisture for regeneration is usually only available a couple of months per year. Desert ecosystems may take many years to recover even with active intervention. Disturbances can further slow this process and restoration has been found to be problematic at other sites in arid ecosystems with large-scale disturbance, including open-pit mines. The EPA recommends that the site restoration planning take into account the uncertainty and harshness of the Mojave Desert climate and include monitoring of revegetation progress for at least ten years to ensure that the effort is successful.

Recommendations:

The EPA recommends that the DEIS include a requirement for a decommissioning and site restoration plan. The plan should include: 1) cost estimates – including a requirement for the project owner to secure a performance bond, surety bond, letter of credit, corporate guarantee, or other form of financial assurance adequate to cover the cost of decommissioning and effective restoration; 2) time allotted to complete the decommissioning/restoration; 3) description of the structures, facilities, foundations to be removed; and 4) description of restoration measures

including recontouring the surface and revegetation to a condition reasonably similar to the original condition.

Coordination with Tribal Governments

Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments* (November 6, 2000), was issued in order to establish regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications, and to strengthen the United States government-to-government relationships with Indian tribes.

Recommendation:

The DEIS should describe the process and outcome of government-to-government consultation between the BLM and each of the tribal governments within the project area, issues that were raised (if any), and how those issues were addressed in the selection of the proposed alternative.

National Historic Preservation Act and Executive Order 13007

Consultation for tribal cultural resources is required under Section 106 of the National Historic Preservation Act. Historic properties under the NHPA are properties that are included in the National Register of Historic Places or that meet the criteria for the National Register. Section 106 of the NHPA requires a federal agency, upon determining that activities under its control could affect historic properties, consult with the appropriate State Historic Preservation Officer/Tribal Historic Preservation Officer. Under NEPA, any impacts to tribal, cultural, or other treaty resources must be discussed and mitigated. Section 106 of the NHPA requires that Federal agencies consider the effects of their actions on cultural resources, following regulation in 36 CFR 800.

Executive Order 13007, *Indian Sacred Sites* (May 24, 1996), requires federal land managing agencies to accommodate access to, and ceremonial use of, Indian sacred sites by Indian Religious practitioners, and to avoid adversely affecting the physical integrity, accessibility, or use of sacred sites. It is important to note that a sacred site may not meet the National Register criteria for a historic property and that, conversely, a historic property may not meet the criteria for a sacred site.

Recommendation:

The DEIS should address the existence of Indian sacred sites in the project areas. It should address Executive Order 13007, distinguish it from Section 106 of the NHPA, and discuss how the BLM will avoid adversely affecting the physical integrity, accessibility, or use of sacred sites, if they exist. The DEIS should provide a summary of all coordination with Tribes and with the SHPO/THPO, including identification of NRHP eligible sites, and development of a Cultural Resource Management Plan.

Environmental Justice and Impacted Communities

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (February 11, 1994) and the more recent Interagency Memorandum of Understanding on Environmental Justice and Executive Order 12898 (August 4, 2011) direct federal agencies to identify and address disproportionately high and adverse human health or environmental effects on minority and low-income populations, allowing those populations a meaningful opportunity to

participate in the decision-making process. Guidance⁶ by CEQ clarifies the terms low-income and minority population (which includes Native Americans) and describes the factors to consider when evaluating disproportionately high and adverse human health effects.

Recommendations:

The DEIS should include an evaluation of environmental justice populations within the geographic scope of the projects. If such populations exist, the DEIS should address the potential for disproportionate adverse impacts to minority and low-income populations, and the approaches used to foster public participation by these populations. Assessment of the projects impact on minority and low-income populations should reflect coordination with those affected populations.

The DEIS should describe outreach conducted to all other communities that could be affected by the project, since rural communities may be among the most vulnerable to health risks associated with the project.

Coordination with Land Use Planning Activities

The DEIS should discuss how the proposed action would support or conflict with the objectives of federal, state, tribal or local land use plans, policies and controls in the project areas. The term "land use plans" includes all types of formally adopted documents for land use planning, conservation, zoning and related regulatory requirements. Proposed plans not yet developed should also be addressed if they have been formally proposed by the appropriate government body in a written form (CEQ's Forty Questions, #23b).

⁶ Environmental Justice Guidance under the National Environmental Policy Act, Appendix A (Guidance for Federal Agencies on Key Terms in Executive Order 12898), CEQ, December 10, 1997.

La Cuna de Aztlan Sacred Sites Protection Circle

Alfredo A. Figueroa
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Phone: (760) 922-6422
E-mail: lacunadeaztlan@aol.com

October 19, 2011

Bureau of Land Management
Public Scoping Meeting
Desert Harvest Solar Project EIS
October 3, 2011

Comments

Alfredo Acosta Figueroa
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Chemehuevi Tribal Monitor
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Dear Lynette Elser,

This letter is in reference to the Public Scoping meeting that took place on October 3, 2011 in Desert Center, Ca. We want the public to know that we are 100% opposed to the proposed Desert Harvest Solar Project.

The Desert Harvest Solar Project is just an extension of the Desert Solar Farm Project and it is going to contribute to the destruction of one of the most sacred sites that is depicted in the Aztec Sun Stone Calendar. During the meeting I referred to these sacred sites and I hope that Rhonda Goodman, Deposition & Court Reporter was able to note all that I said and that these notes will be available to the general public.

As you well know, Joshua Tree National Park is not only one of the most beautiful desert parks in the United States but it's also one of the 4 corners of the base of what is called "Nahui-Ollin" (Azteca Language) which is commonly known as the Swastika (Image). In addition, the sunset on June 21 and the

petroglyphs in Eagle Mountain depict the summer solstice and in the Aztec/Mexica language this is the origin of Cuauhtémoc which means "Descending Sun." The 13-Acatl Monuments which are also located within the area form one of the 4-points (West Point) on the Aztec Sun Stone Calendar. Also, in this area is where 2 major trails that traverse from the Colorado River down to the Coachella Valley are located.

Phil Smith, Chemehuevi Tribal Monitor stated during the meeting that Desert Center is very sacred to the Chemehuevi Tribe and this is where we used to get the stones for our rituals and metates (Stone Mortars).

According to John Benoit, Riverside County Board of Supervisors, there are over 200,000 acres of available pristine desert public land in Eastern Riverside County for solar power development and apparently this is the same policy that the BLM is currently pursuing. This is totally absurd because the BLM should be there to protect these sacred sites and not allow anyone to destroy them.

As we have seen the government fast-track stimulus money programs have been a complete failure. It is ridiculous to continue spending more government money to promote these projects. As we have found out, even the birds that fly over these solar panels die. In addition, we have other desert wildlife that will be greatly affected by these projects. In a recent article regarding the Jenko Solar Project in China, people are protesting against the solar panel projects in their country because they have not only contaminated water but also the atmosphere that has ruined their agriculture industry. Apparently not even China is benefiting from these thousands of solar panel projects.

We are not totally opposed to solar panels, we feel that they should be placed in areas that have already been disturbed as well as placed on top of roof-tops and in urban areas where energy is mostly need (Warehouses, Supermarkets, apartment complexes etc.) This will totally exclude the need for transmission lines which has now presented major terrorist threats like the blackout that we had on September 8, 2011.

Thank you for allowing us the opportunity to express our concerns and opposition. We are available to take you and tour you and your archaeologists around these sites. So please feel free to contact me.

Sincerely,

Alfredo Acosta Figueroa
Alfredo Acosta Figueroa



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Ecological Services

Palm Springs Fish and Wildlife Office
777 East Tahquitz Canyon Way, Suite 208
Palm Springs, California 92262

In Reply Refer To:
FWS-WRIV-10B0593-12TA0018

Memorandum:

To: District Manager, California Desert District, Bureau of Land Management
Moreno Valley, California
Attn: Lynnette Elser, Planning and Environmental Coordinator

From: Assistant Field Supervisor, Palm Springs Fish and Wildlife Office
Carlsbad, California

Subject: Notice of Intent to Prepare an Environmental Impact Statement for the Proposed enXco
Desert Harvest Solar Farm Project, Riverside County, California and Possible Land Use
Plan Amendment

We are writing this letter to provide formal comments for consideration during the development of the Environmental Impact Statement (EIS) for the proposed construction and operation of enXco's Desert Harvest Solar Project. The proposed project may impact the federally threatened Mojave desert tortoise (*Gopherus agassizii*) and several Federal trust resources including western burrowing owl (*Athene cunicularia*) and golden eagle (*Aquila chrysaetos*). This letter summarizes our verbal comments provided during pre-application filing meetings and coordination conference calls (with the applicant, Bureau of Land Management (BLM), California Department of Fish and Game (CDFG), and U.S. Fish and Wildlife Service (Service) held during the spring of 2011.

The proposed solar photovoltaic project is located approximately 6 miles north of Desert Center, California and 0.6 mile north of Interstate 10 (I-10); the project footprint would be approximately 1,280 acres. The proposed project site is located within the Mojave desert tortoise Colorado Desert Recovery Unit (Service 2011) and shares its southwestern border with the Chuckwalla designated critical habitat unit and Desert Wildlife Management Area. Part of the northern portion occurs within the Palen-Ford multi-species Wildlife Habitat Management Area designated in the Northern and Eastern Colorado Desert Coordinated Management Plan (BLM 2002). The proposed project site is also immediately adjacent to the southern boundary of the more than 4,000-acre Desert Sunlight Solar Farm project, which is currently under construction.

There are numerous applications for utility-scale solar and wind energy projects on public and private land across the southwest to meet either State-mandated or national energy priorities. Given the extent of renewable energy projects in the vicinity, we recommend that BLM and State or local agencies conduct a thorough analysis identifying all cumulative, direct, and indirect effects that are expected from the proposed project and associated infrastructure. The Service is particularly concerned with impacts to Mojave desert tortoise habitat connectivity and the potential loss of gene flow within and among designated critical habitat units across the species' range (Service 2011).

Consequently, the draft EIS analysis should examine potential impacts to the population connectivity requirements of desert tortoise and other plant and wildlife species throughout the project area and alternative project sites to avoid any significant adverse effects.

Migratory birds are federally protected under the Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 *et seq.*) and under Executive Order 13186 - Responsibility of Federal Agencies to Protect Migratory Birds. Based on the Service's management authority for migratory birds under the MBTA, we also recommend that the EIS include an evaluation of potential impacts to migratory and resident birds, particularly the western burrowing owl. Western burrowing owls have been documented in the project area and we recommend protocol surveys for the species be conducted in support of the EIS analysis. In addition to MBTA, eagles are protected under the Bald and Golden Eagle Protection Act. Active and inactive golden eagle nests were documented in 2010 within close proximity to the proposed project. Since nesting patterns change annually, we recommend providing up-to-date biological information about golden eagles within a 10 mile radius of the project area for the EIS analysis. Please refer to the Interim Golden Eagle Inventory and Monitoring Protocols (Pagel *et al.* 2010) for appropriate survey methods.

Finally, to minimize impacts from linear project features, we recommend co-locating these components to the extent practicable with First Solar's Desert Sunlight project. Co-location opportunities include utilizing a common generation tie line alignment, right-of-way, and access roads, and sharing the northernmost boundary security fencing.

We appreciate the opportunity to provide formal comments on the project. We look forward to continuing to work closely with the BLM and the other permitting/approval agencies and other stakeholders involved in this process. If you have any questions regarding these comments, please contact Tera Baird of my staff at 760-322-2070, extension 217.

cc:

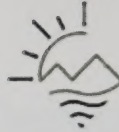
Kim Nicol, California Department of Fish and Game, Bermuda Dunes, California

Literature Cited

- Bureau of Land Management. 2002. Northern and Eastern Colorado Desert coordinated management plan, an amendment of the 1980 Bureau of Land Management California Desert Conservation Area Plan. Bureau of Land Management, California Desert District, Moreno Valley, California.
- Pagel, J.E. Pagel, J.E., D.M. Whittington, and G.T. Allen. 2010. Interim Golden Eagle technical guidance: inventory and monitoring protocols; and other recommendation. Division of Migratory Birds, U.S. Fish and Wildlife Service.
- [Service] U.S. Fish and Wildlife Service. 2011. Revised recovery plan for the Mojave population of the desert tortoise (*Gopherus agassizii*). U.S. Fish and Wildlife Service, Pacific Southwest Region, Sacramento, California.



Matthew Rodriguez
Secretary for
Environmental Protection



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Department of Toxic Substances Control

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Deborah O. Raphael, Director
5796 Corporate Avenue
Cypress, California 90630



Edmund G. Brown Jr.
Governor

October 20, 2011

Ms. Lynnette Elser
U.S. Department of Interior
Bureau of Land Management
22835 Calle San Juan de Los Lagos
Moreno Valley, California 92553

NOTICE OF INTENT OF A DRAFT ENVIRONMENTAL STATEMENT FOR THE DESERT HARVEST SOLAR FARM PROJECT, (SCH#2011094004), RIVERSIDE COUNTY

Dear Ms. Elser:

The Department of Toxic Substances Control (DTSC) has received your submitted Notice of Intent (NOI) for a draft Environmental Impact Statement (EIS) for the above-mentioned project. The following project description is stated in your document: "The Desert harvest Solar Farm Project (desert Harvest Project) is a 150-megawatt (MW) photovoltaic (PV) solar electricity generation project. The proposed project would be located on Bureau of Land Management (BLM) - administered lands in Riverside County about 6 miles north of the rural community of Desert Center, California. The project's 230-kilovolt (kV) generation interconnection transmission line would either be via the First Solar Desert Sunlight 230-kV gen-tie (as a shared facility), or would be located on private and BLM-administered lands and would utilize a planned 230-to-500 kV substation (referred to as the Red Bluff Substation). The Red Bluff Substation would connect the project to the Southern California Edison regional transmission grid. The overall site layout and generalized land uses would include a substation, an administrative building, operations and maintenance facilities, a transmission line, and temporary construction lay down areas, with a total proposed project footprint of approximately 1,280 acres."

Based on the review of the submitted document DTSC has the following comments:

- 1) The EIS should evaluate whether conditions within the Project area may pose a threat to human health or the environment. Following are the databases of some of the regulatory agencies:

- National Priorities List (NPL): A list maintained by the United States Environmental Protection Agency (U.S.EPA).
 - Envirostor (formerly CalSites): A Database primarily used by the California Department of Toxic Substances Control, accessible through DTSC's website (see below).
 - Resource Conservation and Recovery Information System (RCRIS): A database of RCRA facilities that is maintained by U.S. EPA.
 - Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS): A database of CERCLA sites that is maintained by U.S.EPA.
 - Solid Waste Information System (SWIS): A database provided by the California Integrated Waste Management Board which consists of both open as well as closed and inactive solid waste disposal facilities and transfer stations.
 - GeoTracker: A List that is maintained by Regional Water Quality Control Boards.
 - Local Counties and Cities maintain lists for hazardous substances cleanup sites and leaking underground storage tanks.
 - The United States Army Corps of Engineers, 911 Wilshire Boulevard, Los Angeles, California, 90017, (213) 452-3908, maintains a list of Formerly Used Defense Sites (FUDS).
- 2) The EIS should identify the mechanism to initiate any required investigation and/or remediation for any site within the proposed Project area that may be contaminated, and the government agency to provide appropriate regulatory oversight. If necessary, DTSC would require an oversight agreement in order to review such documents.
- 3) Any environmental investigations, sampling and/or remediation for a site should be conducted under a Workplan approved and overseen by a regulatory agency that has jurisdiction to oversee hazardous substance cleanup. The findings of any investigations, including any Phase I or II Environmental Site Assessment Investigations should be summarized in the document. All sampling results in which hazardous substances were found above regulatory standards should be clearly summarized in a table. All closure, certification or remediation approval reports by regulatory agencies should be included in the EIS.

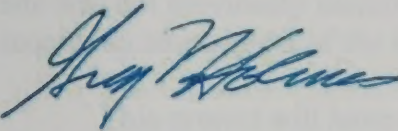
- 4) If buildings, other structures, asphalt or concrete-paved surface areas are being planned to be demolished, an investigation should also be conducted for the presence of other hazardous chemicals, mercury, and asbestos containing materials (ACMs). If other hazardous chemicals, lead-based paints (LPB) or products, mercury or ACMs are identified, proper precautions should be taken during demolition activities. Additionally, the contaminants should be remediated in compliance with California environmental regulations and policies.
- 5) Future project construction may require soil excavation or filling in certain areas. Sampling may be required. If soil is contaminated, it must be properly disposed and not simply placed in another location onsite. Land Disposal Restrictions (LDRs) may be applicable to such soils. Also, if the project proposes to import soil to backfill the areas excavated, sampling should be conducted to ensure that the imported soil is free of contamination.
- 6) Human health and the environment of sensitive receptors should be protected during any construction or demolition activities. If necessary, a health risk assessment overseen and approved by the appropriate government agency should be conducted by a qualified health risk assessor to determine if there are, have been, or will be, any releases of hazardous materials that may pose a risk to human health or the environment.
- 7) If the site was used for agricultural, livestock or related activities, onsite soils and groundwater might contain pesticides, agricultural chemical, organic waste or other related residue. Proper investigation, and remedial actions, if necessary, should be conducted under the oversight of and approved by a government agency at the site prior to construction of the project.
- 8) If it is determined that hazardous wastes are, or will be, generated by the proposed operations, the wastes must be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (California Code of Regulations, Title 22, Division 4.5). If it is determined that hazardous wastes will be generated, the facility should also obtain a United States Environmental Protection Agency Identification Number by contacting (800) 618-6942. Certain hazardous waste treatment processes or hazardous materials, handling, storage or uses may require authorization from the local Certified Unified Program Agency (CUPA). Information about the requirement for authorization can be obtained by contacting your local CUPA.

Ms. Lynnette Elser
October 20, 2011
Page 4

- 9) DTSC can provide cleanup oversight through an Environmental Oversight Agreement (EOA) for government agencies that are not responsible parties, or a Voluntary Cleanup Agreement (VCA) for private parties. For additional information on the EOA or VCA, please see www.dtsc.ca.gov/SiteCleanup/Brownfields, or contact Ms. Maryam Tasnif-Abbasi, DTSC's Voluntary Cleanup Coordinator, at (714) 484-5489.

If you have any questions regarding this letter, please contact Rafiq Ahmed, Project Manager, at rahmed@dtsc.ca.gov, or by phone at (714) 484-5491.

Sincerely,



Greg Holmes
Unit Chief
Brownfields and Environmental Restoration Program

cc: Governor's Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044
state.clearinghouse@opr.ca.gov.

CEQA Tracking Center
Department of Toxic Substances Control
Office of Environmental Planning and Analysis
P.O. Box 806
Sacramento, California 95812
Attn: Nancy Ritter
nritter@dtsc.ca.gov

CEQA # 3369



Michael J. Connor, Ph.D.
California Director
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Web site: www.westernwatersheds.org

Working to protect and restore Western Watersheds

October 13, 2011

By Email

Lynnette Elser, Planning and Environmental Coordinator
BLM California Desert District Office
22835 Calle San Juan de Los Lagos
Moreno Valley, California 92553

< CAdesertharvest@blm.gov >
< lelser@blm.gov >

Re: Notice of Intent To Prepare an Environmental Impact Statement for the Proposed enXco Desert Harvest Solar Farm Project, Riverside County, CA and Possible Land Use Plan Amendment. Federal Register, September 15, 2011.

Dear Ms. Elser:

On behalf of Western Watersheds Project and myself, please accept the following scoping comments as you embark on the preparation of an Environmental Impact Statement for the Proposed enXco Desert Harvest Solar Farm Project, Riverside County, CA and Possible Land Use Plan Amendment.

Western Watersheds Project works to protect and conserve the public lands, wildlife and natural resources of the American West through education, scientific study, public policy initiatives, and litigation. Western Watersheds Project and its staff and members use and enjoy the public lands, including the lands at issue here, and its wildlife, cultural and natural resources for health, recreational, scientific, spiritual, educational, aesthetic, and other purposes.

Western Watersheds Project recognizes that global climate change poses significant new challenges to our already stressed public lands. However, while climate change threatens biodiversity and entire fragile ecosystems, our response to climate change also threatens our public lands and their wildlife. Accordingly, WWP supports responsible development of power plant projects. Responsible development requires the use of comprehensive, ecologically sound, science-based analysis in determining power plant locations. This is best achieved by focusing energy developments on private or severely altered lands that are located close to points of use to minimize new disturbance or further fragmentation of fragile, native ecosystems. The ecological impacts from renewable energy project development should be fully mitigated with significant and lasting actions.

According to the notice of intent, the applicant, enXco, has requested a right-of-way (ROW) authorization to construct, operate, maintain, and decommission the Desert Harvest Project. The proposed project would be located on BLM-administered lands in Riverside County about 6 miles north of the rural community of Desert Center, California. This location is immediately south of the recent approved Desert Sunlight Solar Farm Solar. The overall site layout and generalized land uses would include a substation, an administration building, operations and maintenance facilities, transmission line, and temporary construction lay down areas, with a total proposed project footprint of approximately 1,280 acres. The project's 230-kilovolt (kV) generation interconnection transmission line would either be via the First Solar Desert Sunlight 230-kV gen-tie (as a shared facility), or would be located on private and BLM-administered lands and would utilize a planned 230- to 500-kV substation (referred to as the Red Bluff Substation). The Red Bluff Substation would connect the project to the Southern California Edison regional transmission grid. If approved, project construction would begin in late 2013 and would take 9–12 months to complete. Since the proposed Desert Harvest Project site was not previously identified as suitable, authorization of the Desert Harvest Project will require an amendment of the CDCA Plan.

This project will have direct, indirect and cumulative impacts on some of the desert's most sensitive resources including species listed under the Endangered Species Act such as desert tortoise and on important cultural resources. The BLM has identified the following preliminary issues: air quality, biological resources, recreation, cultural resources, water resources, geological resources, special management areas, land use, noise, paleontological resources, public health, socioeconomic, soils, traffic and transportation, and visual resources.

Specific issues of concern that should be addressed in the NEPA documents to ensure compliance with NEPA and to ensure that NEPA's requisite "hard look" at the environmental impacts include:

(1) Range of Alternatives.

The NEPA implementing regulations specify that NEPA documents must analyze a full range of alternatives including "reasonable alternatives not within the jurisdiction of the lead agency" (40 C.F.R. § 1502.14). Based on the information and analysis presented in the sections on the Affected Environment (40 C.F.R. § 1502.15) and the Environmental Consequences (40 C.F.R. § 1502.16), the NEPA document should present the environmental impacts of the proposed action and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public

In order to comply with the spirit and letter of NEPA, the EIS must consider alternatives that meet the project goals and not simply propose "straw man" alternatives that can then be dismissed from further consideration. We suggest that the agencies consider the following reasonable alternatives in addition to any proposed action:

- (a) No Action Alternative as is required by NEPA.
- (b) Public lands that are not desert tortoise habitat.

- (c) A private lands alternative under which the project is built on private lands only.
- (d) A distributed energy alternative using “roof top” solar to avoid the need for construction of a power plant.
- (e) An alternative that removes the southwestern separated piece of the project to avoid impacts to the significant population of Emory's crucifixion-thorn (*Castela emoryi*) that occurs there.
- (f) An alternative plan amendment that will protect sensitive resources by making the proposed project site unavailable for energy development.

Full analysis of these alternatives will help clarify the need for the proposed project, provide a baseline for identifying and fully minimizing resource conflicts, facilitate compliance with the BLM's FLPMA requirement to prevent the unnecessary and undue degradation of public lands and its resources, and will help provide a clear basis for making an informed decision.

(2) Biological Resources.

The BLM has a statutory obligation to protect sensitive and special status species. Irrespective of whether or not a species has special status, the NEPA requires the BLM take a “hard look” at the environmental impacts of its proposed actions on locally occurring species and their habitats to ensure that its actions do not result in significant environmental impacts. The NEPA documents must describe, clearly characterize and identify biological resources that will be impacted by each alternative. The EIS should carefully consider and analyze potential impacts to all species that would be affected by the project. It should provide detailed vegetation and wildlife maps to facilitate public input into the process.

(A) Desert Tortoise.

The NEPA/CEQA documents must describe, clearly characterize and identify the desert tortoise population that will be impacted by each alternative.

The proposed project site is in California's Colorado Desert within the Colorado Desert Tortoise Recovery Unit. The project site is currently classed as BLM Category III desert tortoise habitat. The management guidelines for Category III desert tortoise habitat are to “Limit tortoise habitat and population declines to the extent possible by mitigating impacts” (Spang et al. 1988).

The proposed project site is occupied desert tortoise habitat. Detailed surveys are required to determine the number of tortoises that would be impacted. The EIS should also consider the status of the tortoises in the affected recovery unit. The latest report from the Desert Tortoise Recovery Office cites a 37% in tortoise density in the Eastern Colorado Recovery Unit between 2005 and 2007.¹

¹ USFWS. 2009. Range-wide Monitoring of the Mojave Population of the Desert Tortoise: 2007 Annual Report. Report by the Desert Tortoise Recovery Office, U.S. Fish and Wildlife Service, Reno, Nevada.

The project will directly, indirectly and cumulatively impact desert tortoises. These impacts include habitat loss; habitat disturbance; fragmentation of habitat and decreased viability of fragmented populations; loss of connectivity; potential increases in predators such as ravens and coyotes; introduction, establishment and spread of invasive plants and weeds; increased fire risk; increased human presence; and increased use of roads.

The NEPA analysis must consider impacts from the proposed project on connectivity between desert tortoise populations. Disruption of connectivity could reduce gene flow and impair desert tortoise recovery and must be addressed in the EIS.

Maintaining connectivity is important especially given the threats posed by global climate change. As the USFWS 2008 Draft Revised Recovery Plan notes,

“Climatic regimes are believed to influence the distribution of plants and animals through species-specific physiological thresholds of temperature and precipitation tolerance. Warming temperatures and altered precipitation patterns may result in distributions shifting northward and/or to higher elevations, depending on resource availability (Walther et al. 2002). We may expect this response in the desert tortoise to reduce the viability of lands currently identified as “refuges” or critical habitat for the species.” (USFWS 2008 at 133)

The proposed project may result in the need for translocation of desert tortoises. BLM Handbook 1745 - Introduction, Transplant, Augmentation, and Reestablishment of Fish, Wildlife, and Plants - requires that “Decisions for making introductions, transplants, or reestablishments should be made as part of the land use planning process (see BLM Manual Section 1622). Releases must be in conformance with approved RMPs. A Land Use Plan Amendment must be prepared for proposed releases if management direction is not provided in the existing Land Use Plan (see BLM Manual Section 1617, emphasis added).” There is no consideration in the current CDCA Plan for large-scale desert tortoise translocations. Therefore, the BLM will need to amend the CDCA Plan or develop a desert tortoise translocation plan if this project moves forward. BLM Handbook 1745 requires that activity plans for translocations must be site-specific and include “Site-specific and measurable vegetation/habitat population objectives which are based on existing ecological site potential/condition, habitat capability, and other important factors.” The BLM must include a detailed translocation plan for the project in its NEPA documentation.

The NEPA documents should provide a detailed review and analysis of the direct, indirect and cumulative impacts of the proposed project and all associated infrastructure including roads and transmission lines on the Colorado desert tortoise recovery unit.

(B) Desert Bighorn Sheep.

The proposed project site is located between the Eagle Mountains and Coxcomb Mountains bighorn sheep demes and may provide connectivity for bighorn sheep moving between them. The NECO Plan has a biological goal of maintain habitat connectivity within and between bighorn sheep demes and requires “Installation of new roads, fences and other linear projects will be mitigated to consider passage of bighorn sheep” [NECO Plan at 2-44]. The

NEPA documents should review all direct, indirect and cumulative impacts to this species including impacts to linkage habitat and connectivity.

(C) Birds.

The BLM has a statutory obligation to protect sensitive and special status species. Irrespective of whether or not a species has special status, the NEPA requires the BLM take a hard look at the environmental impact of its proposed actions on locally common species to ensure that its action does not result in significant environmental impacts. The NECO Plan has specific language that the BLM must follow including requiring that "The fragmenting affects of projects should be considered in the placement, design, and permitting of new projects." [NECO Plan at 2-43]. For projects in habitat for burrowing owl, *Athene cunicularia*, the NECO Plan requires the BLM to "Limit construction activity period to September 1 – February 1 if burrowing owls are present in a project area." [NECO Plan at 2-56]

There are a number of bird species that occur on the proposed project site or in the vicinity that are state protected, NECO special status species, and/or BLM sensitive species. These include Golden Eagle (*Aquila chrysaetos*), Loggerhead Shrike (*Lanius ludovicianus*), Western Burrowing Owl (*Athene cunicularia hypugaea*), Le Conte's Thrasher (*Toxostoma lecontei*), Crissal Thrasher (*Toxostoma crissale*), Swainson's hawk (*Buteo swainsonii*), Vaux's Swift (*Chaetura vauxi*), and Brewer's Sparrow (*Spizella breweri*), prairie falcon (*Falco mexicanus*), and mountain plover (*Charadrius montanus*).

In their study of the Solar One project, McCrary *et al.*, found that the most frequent form of avian mortality was collision with structures (McCrary *et al.*, 1986²). The proposed Stateline Solar project site is located close to Primm golf course which has a number of water features including a lake. These water features draw birds into the immediate vicinity of the Project. McCrary *et al.*, 1986 specifically recommend avoiding siting power projects in close proximity to open water to reduce the impact to birds. As McCrary *et al* point out, reflective surfaces are especially prone to collisions. Collisions accounted for 75% of the bird deaths. McCrary *et al* found that at least 22 different bird species suffered collision fatalities. The proposed project will establish a field of thousands of PV panels with highly reflective surfaces in the PV array. While many of the birds that use the project site are active during the day, some forage at night. However, even strictly diurnal species will take to flight at night if they disturbed. Thus the risk of risk of bird collision with the PV panels is round-the-clock.

The NEPA analysis should include a full and frank analysis of risks to resident and migratory birds including to golden eagles and determine the collision risks. It should characterize bird flight patterns, and should quantify anticipated avian deaths.

(D) Other Sensitive Wildlife Species.

A number of other state protected species, NECO special status species and BLM sensitive species of wildlife occur on the project or in the vicinity including the Palm Springs

² McCrary, M. D., McKernan, R. L., Schreiber, R. W., Wagner, W. D. and Sciarrotta, T. C. 1986. Avian Mortality at a Solar Energy Power Plant. *Journal of Field Ornithology*, 57(2): 135- 141.

round-tailed ground squirrel (*Spermophilus tereticaudus chlorus*), Mojave fringe-toed lizard (*Uma scoparia*), chuckwalla (*Sauromalus ater*), California leaf-nosed bat (*Macrotus californicus*), Pallid bat (*Antrozous pallidus*), other rat bat species, American badger (*Taxidea taxus*), mountain lion (*Puma concolor*), and burro deer (*Odocoileus hemionus eremicus*).

(E) Rare and Sensitive Plant Species.

The southwestern piece of the project overlies a significant population of Emory's crucifixion-thorn, *Castela emoryi*. According to the NECO Plan, Emory's crucifixion-thorn found in locally restricted sites in the southern Mojave and Sonoran deserts with only 13 records from the NECO Plan area. NECO Plan at 3-24.

A number of other rare plants occur on the project or in the vicinity including the Coachella Valley Milkvetch (*Astragalus lentiginosus* var. *coachellae*), California ditaxis (*Ditaxis serrata* var. *californica*), foxtail cactus (*Coryphantha alversonii*), slender-spined all-thorn (*Koeberlinia spinosa* ssp. *tenuispina*), and desert devil's claw (*Proboscidea althaeifolia*).

(F) Rare Habitats and Vegetation Communities.

There are rare desert woodland communities present along washes in the project area and stands of ironwood. These are important habitats in their own right but also because they provide very important habitats for wildlife and other plants. The NEPA documents should inventory the vegetation communities present on the site and explain for each alternative considered what avoidance measures will be adopted to minimize impacts to any rare desert communities.

(3) Invasive Species.

Invasive weeds grow easily wherever the natural vegetation and biological soil crusts are disturbed. The disturbance to the soil and natural vegetation that will occur as a result of the construction and maintenance of the proposed transmission line must not be allowed to establish a "weed corridor" across the landscape. Once established, weeds are almost impossible to remove permanently.

Invasive plants and weeds are threats to native habitat, rare plants, and sensitive species. They pose an immense fire hazard. Using chemicals to kill weeds requires exposing the environment, species, and watershed area to a toxic substance which can be the source of further damage to environmental and human health. Manual weed control requires much human effort, machinery, and can cause even more disturbance, leading to erosion, disturbance, and, in some cases, more weeds. The NEPA analysis must take a hard look at the impacts of the project on invasive weeds and should carefully consider how invasive plants and weeds will be managed and controlled.

(4) Hazards and Hazardous Materials.

The NEPA analysis should disclose any potentially toxic or hazardous wastes that may be associated with these projects during project construction, operation, and maintenance including pesticides and herbicides.

(5) Fire Prevention and Suppression.

The NEPA analysis should address the effects that each alternative for each project may have on wildfire risks. Wildfires are becoming increasingly common in the Mojave Desert facilitated by the spread of invasive weeds and climate change. Wildfires can result in type conversion of large expanses of habitat. Wildfires could be caused by construction or operation of the transmission lines. Development of roads and transmission lines could encourage increased motorized vehicle access which increases fire risk especially when coupled with the spread of invasive weeds.

(6) Desert Washes, Ephemeral Streams and Soils.

Desert washes, drainage systems, and washlets are very important habitats for plants and animals in arid lands. Water concentrates in such places, creating greater cover and diversity of shrubs, bunch grasses, and annual grasses and forbs. The topography is often more varied, as are soil types and rock types and sizes, creating diverse sites for burrows, caves, and other shelters. The resulting "habitats" tend to attract more birds, mammals, reptiles, and invertebrates. For example, desert tortoises spend disproportionately more time in washes than they do on "flat" areas.³ The wash habitat impacted by each alternative should be evaluated and appropriate mitigations made for streambed alterations.

Soil erosion on low fill slopes and steeply graded areas could result in sedimentation of water bodies. Changes in hydrology and soil movements may impact rare plants and habitats for sensitive species in the surrounding area, and may impact burrowing species such as the desert tortoise.

(7) Cultural & Paleontological Resources.

The Mojave Desert is rich in structures and artifacts of significant cultural value that are irreplaceable once lost. A Class III cultural resources survey and report for the DSSF Project is needed to satisfy the requirements of NEPA and the National Historic Preservation Act. The DEIS should discuss and analyze all impacts to paleontological and Native American cultural resources. Building new transmission lines could cause physical damage to artifacts and sites, expose cultural resources to looters, and could increase fires due to soil disturbance and subsequent weed invasion placing these cultural resources at risk of future damage.

³ Jennings, B.J. 1997. Habitat Use and Food Preferences of the Desert Tortoise, *Gopherus agassizii*, in the Western Mojave Desert and Impacts of Off-Road Vehicles. Proceedings: Conservation, Restoration, and Management of Tortoises and turtles—An International Conference, pp. 42–45. New York Turtle and Tortoise Society.

(8) Global Climate Change.

Department of the Interior Order No. 3226 mandates that the BLM must consider the impacts of each proposed alternative with respect to global climate change in its NEPA reviews. The agencies should use the recently released USGS desert tortoise habitat model to determine likely changes in desert tortoise habitat quality in the area and the importance of the desert tortoise habitat. In addition to addressing climate change in the cumulative effects analysis, the EIS should address the carbon footprint of the project and any losses to carbon storage and sequestration it will engender.

(9) Visual Resources.

These public lands are close to Joshua Tree National Park and its Wilderness areas. The EIS should fully review the impacts of each alternative on visual resources including the effects on wilderness character and values.

(10) Water Issues.

The NEPA documents must provide information on the water needs of this power plant both in the construction and operation phases and the source of these waters. The EIS must fully analyze impacts to the local and regional water reserves.

(11) Environmental Justice Issues.

The BLM's NEPA analysis must fully consider environmental justice concerns during this permitting process. The proposed project will be located near the community of Desert Center. That community already has one major solar project being constructed on nearby public lands. This project will further restrict access to public lands by members of the Desert Center community. They will bear the brunt of any visual impacts, impacts to water resources, impacts to other resources, and the consequences of the industrialization of this relatively rural community.

(12) Cumulative Effects.

The NEPA documents must consider the cumulative effects of this project in combination with all the other consumptive uses that are occurring on these public lands including all the other energy projects being built in the region, off road vehicle activity, and mining. New transmission line projects have the potential to open up more lands to energy (or other) development, placing wide swaths of habitat at risk, and greatly increase degradation and fragmentation of habitats and important wild land areas and have lasting and damaging impacts.

(13) Monitoring Programs.

The NEPA documents must explain the monitoring programs that will be in place to monitor the short and long term impacts of the project. This should include the timelines, and estimated costs and sources of funding for the monitoring programs.

(14) Mitigation.

BLM is obligated under FLPMA to "minimize adverse impacts on the natural, environmental, scientific, cultural, and other resources and values (including fish and wildlife habitat) of the public lands involved." [43 U.S.C. §1732(d)(2)(a)] Other laws, including the Endangered Species Act and the California Endangered Species Act also entail the need for mitigations to minimize impacts. BLM is required to consider measures to mitigate potential environmental consequences in its NEPA analysis. [40 C.F.R. § 1502.16] The NEPA implementing regulations define "Mitigation" to include:

- (a) Avoiding the impact altogether by not taking a certain action or parts of an action.
- (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- (e) Compensating for the impact by replacing or providing substitute resources or environments.

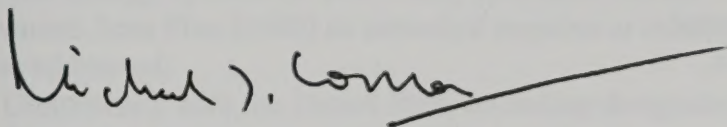
[40 C.F.R. §1508.20]

The DEIS should explain the mitigation measures that will meet all these requirements including avoidance. The primary mitigation for impacts to desert tortoise and rare plants should be avoidance or the acquisition of occupied compensation habitat since this is the only mitigation measure that will offset the habitat loss. Desert tortoise habitat lands should be acquired within the affected Eastern Colorado Recovery Unit. Acquisition of habitat should be accompanied with enhancement measures to compensate for the net loss of habitat. These measures may include removal of livestock, fencing where appropriate, invasive species control, small scale restoration projects, and route closures.

The DEIS should describe the restoration and rehabilitation activities that will be required for habitat disturbed during construction. For example, construction material yards will lose their native vegetation, have their soils compacted, and increase the amount of wind and water erosion while leaving these areas at an increased risk of weed invasion. Transporting materials, labor, and equipment in and out of construction areas will also have their own set of impacts that must be minimized. Construction may also require the use of "temporary" roads that will require extensive rehabilitation if they are not to become permanent intrusions on the landscape. Rehabilitation of desert habitat is a long, slow and uncertain process.

Western Watersheds Project thanks you for the opportunity to submit scoping comments on the proposed solar plant project. Please keep Western Watersheds Project on the list of interested public for this project. If we can be of any assistance or provide more information please feel free to contact me by telephone at (818) 345-0425 or by e-mail at <mjconnor@westernwatersheds.org>.

Yours sincerely,

A handwritten signature in black ink that reads "Michael J. Connor". The signature is fluid and cursive, with a long horizontal line extending from the end of the name.

Michael J. Connor, Ph.D.
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*protecting and restoring natural ecosystems and imperiled species through
science, education, policy, and environmental law
via electronic mail, website and USPS*

10/17/2011

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RE: Comments on the Notice of Intent ("NOI") to prepare an Environmental Impact Statement (EIS) for the Proposed enXco Desert Harvest Solar Farm Project, Riverside County, CA and Possible Land Use Plan Amendment. 76 FR 57073.

Dear Ms. Elser,

Please accept the Center for Biological Diversity's comments on the Notice of Intent ("NOI") to prepare an Environmental Impact Statement (EIS) for the Proposed enXco Desert Harvest Solar Farm Project (the project), Riverside County, and Possible Land Use Plan Amendment in compliance with the National Environmental Policy Act of 1969 (NEPA), as amended, and the Endangered Species Act (ESA), on the impacts of the project. The Center is a non-profit environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. These scoping comments are submitted on behalf of the Center's 320,000 staff, members and online activists throughout California and the western United States many of whom live in southern California and enjoy visiting, studying, photographing and hiking in the California Desert Conservation Area, including the areas on and around the project site.

The development of renewable energy is a critical component of efforts to reduce greenhouse gas emissions, avoid the worst consequences of global warming, and to assist California in meeting emission reductions. The Center strongly supports the development of renewable energy production, and the generation of electricity from solar power, in particular. However, like any project, proposed solar power projects should be thoughtfully planned to minimize impacts to the environment. In particular, renewable energy projects should avoid impacts to sensitive species and habitat, and should be sited in proximity to the areas of electricity end-use in order to reduce the need for extensive new transmission corridors and the efficiency loss associated with extended energy transmission. Only by maintaining the highest environmental standards with regard to local impacts, and effects on species and habitat, can renewable energy production be truly sustainable.

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The Desert Harvest Solar Farm Project is proposed solar photovoltaic (PV) generating facility with a proposed output of 150 megawatts and a project footprint covering approximately 1,280 acre of in-tact desert landscape. It will include the PV arrays, and will either share First Solar's Desert Sunlight 230-kV gen-tie or it would locate its own 230-kV gen-tie on private and BLM-administered lands and would connect to the planned Red Bluff Substation. This project requires a proposed land use plan amendment to the 1980 California Desert Conservation Area (CDCA) Plan, as amended.

The Energy Production and Utility Corridors section of the California Desert Conservation Area Plan (1980) as amended requires at minimum that the following resource issues be addressed:

- 1) Consistency with the Desert Plan, including designated and proposed planning corridors;
- 2) Protection of air quality;
- 3) Impact on adjacent wilderness and sensitive resources;
- 4) Visual quality;
- 5) Cooling-water source(s);
- 6) Waste disposal;
- 7) Seismic hazards; and
- 8) Regional equity.

Additionally, a number of other resources are of concern to us and need to be addressed in detail as follow below:

Biological Resources

Based on the proposed project description, it appears that this site is proposed on an ecologically functional desert landscape that may host a suite of rare species. Careful documentation of the current site resources is imperative in order to analyze how best to site the project to avoid and minimize impacts and then to mitigate any unavoidable impacts.

Biological Surveys and Mapping

The Center requests that thorough, seasonal surveys be performed for sensitive plant species and vegetation communities, and animal species under the direction and supervision of the BLM and resource agencies such as the US Fish and Wildlife Service and the California Department of Fish and Game. Full disclosure of survey methods and results to the public and other agencies without limitations imposed by the applicant must be implemented to assure full NEPA/ESA compliance.

Confidentiality agreements should not be allowed for the surveys in support of the proposed project. Surveys for the plants and plant communities should follow California Native Plant Society (CNPS) and California Department of Fish and Game (CDFG) floristic survey guidelines¹ and should be documented as recommended by CNPS² and California Botanical

¹ <http://www.cnps.org/cnps/rareplants/inventory/guidelines.php> and
http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/Protocols_for_Surveying_and_Evaluating_Impacts.pdf
² <http://www.cnps.org/cnps/archive/collecting.php>

Society policy guidelines. A full floral inventory of all species encountered needs to be documented and included in the EIS. Surveys for animals should include an evaluation of the California Wildlife Habitat Relationship System's (CWHR) Habitat Classification Scheme. All rare species (plants or animals) need to be documented with a California Natural Diversity Data Base form and submitted to the California Department of Fish and Game using the CNDDDB Form³ as per the State's instructions⁴.

The Center requests that the vegetation maps be at a large enough scale to be useful for evaluating the impacts. Vegetation/wash habitat mapping should be at such a scale to provide an accurate accounting of wash areas and adjacent habitat types that will be directly or indirectly affected by the proposed activities. A half-acre minimum mapping unit size is recommended, such as has been used for other development projects. Habitat classification should follow CNPS' Manual of California Vegetation (Sawyer et. al. 2009).

Adequate surveys must be implemented, not just a single season of surveys, in order to evaluate the existing on-site conditions. Due to unpredictable precipitation, desert organisms have evolved to survive in these harsh conditions and if surveys are performed at inappropriate times or year or in particularly dry years many plants that are in fact on-site may not be apparent during surveys (ex. annual and herbaceous perennial plants).

Impact Analysis

The EIS must evaluate all direct, indirect, and cumulative impacts to sensitive habitats, including impacts associated with the establishment of unpermitted recreational activities, the introduction of non-native plants, the introduction of lighting, noise, and the loss and disruption of essential habitat due to edge effects.

A number of rare resources have high potential to occur on this site including:

<i>Common Name</i>	<i>Scientific Name</i>	<i>State/Federal/Other Status</i>
Desert Tortoise	<i>Gopherus agassizii</i>	CT/FT
Mojave fringe-toed lizard	<i>Uma scoparia</i>	CSC
Burrowing owl	<i>Athene cunicularia hypugaea</i>	CSC/BLM SS
LeConte's thrasher	<i>Toxostoma lecontei</i>	CSC
Bendire's thrasher	<i>Toxostoma bendirei</i>	CSC
Loggerhead shrike	<i>Lanius ludovicianus</i>	CSC/FSC/MB
Prairie falcon	<i>Falco mexicanus</i>	CSC/MB
Nelson's bighorn sheep	<i>Ovis canadensis nelsonii</i>	Game species
Las Animas colubrine	<i>Colubrina californica</i>	CNPS List 2.3
Coves' cassia	<i>Cassia covesii</i>	CNPS List 2.2
Harwood's milkvetch	<i>Astragalus insularis</i> var. <i>harwoodii</i>	CNPS List 2.2
California ayenia	<i>Ayenia compacta</i>	CNPS List 2.3
Alverson's foxtail cactus	<i>Coryphantha alversonii</i>	CNPS List 4.3

³ http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/CNDDDB_FieldSurveyForm.pdf

⁴ http://www.dfg.ca.gov/biogeodata/cnddb/submitting_data_to_cnddb.asp

California ditaxis	<i>Ditaxis serrata</i> var. <i>californica</i>	CNPS List 3.2
Coachella Valley Milkvetch	<i>Astragalus lentiginosus</i> var. <i>coachellae</i>	FE/CNPS 1.2/BLM SS
State Designation CT State listed as threatened. Species that although not presently threatened in California with extinction are likely to become endangered in the foreseeable future. CSC California Department of Fish and Game "Species of Special Concern." Species with declining populations in California.		
Federal Designation FE Federally listed as endangered. FT Federally listed as threatened. MB Migratory Bird Treaty Act. of 1918. Protects native birds, eggs, and their nests. BCC U.S. Fish and Wildlife Service Bird of Conservation Concern. BLM SS BLM Sensitive Species.		
Other California Native Plant Society (CNPS) 1B.1 Plant rare, threatened or endangered in California and elsewhere, and very threatened. 2.2 Plant rare, threatened or endangered in California, but more common elsewhere, and fairly threatened in CA. 2.3 Plant rare, threatened or endangered in California, but more common elsewhere, and not very threatened in CA. 4.3 Plants of a limited distribution, and not very threatened in CA.		

All of these species have been identified as occurring in the general vicinity of the project site.⁵ Therefore, the EIS must adequately address the impacts and propose effective ways to avoid, minimize, and mitigate the impacts to these resources through alternatives including alternative siting and alternative on-site configurations.

Desert Tortoise

The desert tortoise is continuing to decline throughout its range despite being under federal and state Endangered Species Acts protection as threatened⁶. The proposed Desert Harvest project, despite being outside desert wildlife management areas (DWMAs) as identified in the Northern and Eastern Colorado Plan⁷, will likely have desert tortoise occurring on site, because 1) it basically connects the BLM DWMA which lies directly south and west of the proposed project site to Joshua Tree National Park and 2) tortoise were found on the Desert Sunlight project site directly to the north of this proposed project. The EIS must clearly address alternative proposals for avoiding, minimizing and mitigating the impacts to the desert tortoise and any occupied habitat.

The BLM must first look at ways to avoid impacts to the desert tortoise, for example, by identifying and analyzing *alternative sites* outside of desert tortoise occupied habitat or in areas that have already been severely disturbed by other prior land use as well as alternative project configurations that would avoid or significantly reduce impacts. The BLM must also look at ways to minimize any impacts that it finds are unavoidable, for example, by limiting the ground disturbing activities from the project and limiting access roads to the project. Acquisition of lands that will be managed in perpetuity for conservation must be included as part of the strategy to mitigate impacts to the tortoise, mitigation lands should also be high-quality habitat and, at

⁵ CNDDDB 2010 <http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp>

⁶ USFWS 2010

http://www.fws.gov/nevada/desert_tortoise/documents/reports/2010/2010_DRAFT_Rangewide_Desert_Tortoise_Population_Monitoring.pdf

⁷ BLM 2006 <http://www.blm.gov/ca/st/en/fo/cdd/neco.html>

minimum 5:1 mitigation should be provided of all acres of desert tortoise habitat destroyed. Set-aside conservation lands are particularly important because the project as proposed appears to have little or no compatibility with on-site conservation for desert tortoise.

Translocation as a long-term strategy for minimizing and mitigating impacts to desert tortoise may be a tool for augmenting conservation of the desert tortoise⁸, but it cannot substitute for other mitigation such as preservation of habitat. Moreover, to date, translocation does not have a proven track record of success. If translocation (for any species) is to be a part of the mitigation strategy, a detailed final plan must be included as part of the EIS, and include methodologies for determining appropriate conservation area where tortoises may be translocated, impacts to existing “host” tortoise populations that occur on the translocation site, when/how the tortoise are to be translocated, how tortoise diseases will be addressed, and requisite monitoring of host and translocated tortoises, etc.. Monitoring of the translocated and existing “host” tortoises needs to occur for a long enough time period that is realistic to evaluate success of the translocation – 10 years may be a more realistic minimum for tracking impacts to this long lived species. Success criteria for translocation must also be clearly identified. Any temporary project site needs to be fenced with tortoise proof fencing during construction and the permanent project sites need to be fenced to prevent tortoise mortality. All associated roads also need to be fenced.

An aggressive raven prevention plan also needs to be developed as part of the EIS and followed during project development and implementation.

Burrowing Owl

Burrowing owls are continuing to decline in California. If burrowing owls are identified on the site, at least one alternative should evaluate the reduction of impacts to this rare species by moving the project away from the nesting burrows. Additionally, acquisition lands may be required as part of the mitigation and will need to be managed in perpetuity for conservation. Mitigation lands should be high-quality habitat and, at minimum 5:1 mitigation should be provided of all acres of burrowing owl habitat destroyed. Additional measures for avoidance and minimization should also be incorporated into the evaluation of impacts to this species.

Other Rare Species

The diversity of rare species found across the landscape near and on the Desert Harvest site is impressive and suggests that the proposed project site is part of a larger ecologically intact and functioning unit⁹. The BLM must clearly address proposals for avoiding, minimizing and mitigating the impacts to all of the rare species that utilize the sites for part or all of their lifecycle.

Acquisition of lands that will be managed in perpetuity for conservation must be included as part of the strategy to avoid, minimize and mitigate impacts to the other species found on site

⁸ Field et al 2007

⁹ CNDDDB 2010 <http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp>

as well. Acquisition is particularly important for these species because the proposed project appears to have little compatibility with any type of on-site conservation of plant communities or wildlife.

For the rare plants, avoidance is preferable because of the general lack of success in transplanting rare plants¹⁰. If transplantation is to be a part of the mitigation strategy, a detailed final plan must be included as part of the EIS on the methodology for determination of appropriate conservation area where plants may be transplanted, when/how plant are to be transplanted and identification of success criteria for transplantation. Monitoring of the transplanted plants needs to occur for a time period that is realistic to evaluate long-term success of the plants.

Locally Rare Species

The Center requests that the EIS also evaluate the impact of the proposed project on locally rare species (not merely federal- and state-listed threatened and endangered species). The preservation of regional and local scales of genetic diversity is very important to maintaining species in perpetuity especially in light of global climate change. Therefore, we request that all species found at the edge of their ranges or that occur as disjunct locations be evaluated for impacts by the proposed permitted activities.

Sand Transport Corridor

The site has potential to be sited on the sand transport corridor that originates in Joshua Tree National Park, through the Palen and Ford Dry Lake Valleys, across Interstate 10 to the agricultural areas adjacent to Blythe. This corridor provides sand habitat for a suite of sand-specialists, including the Mojave fringe-toed lizard that reaches its most southern edge of its range in this area. Avoidance should be the first step, but if impacts to habitat as well as disruption to the sand transport corridor are anticipated they must be identified, minimized and analyzed.

Water Resources

The project appears to impact on-site drainages on the project site. The EIS document must clarify the impacts to the jurisdictional Waters of U.S. and the Water of the State of California, and avoid, minimize and mitigate any impacts. Impacts should be avoided to the greatest extent possible and if impacts remain they must be mitigated. In doing so, any reroute of waters and drainage on the site must assure that downstream processes are not impacted.

An evaluation of the effect of additional groundwater pumping (in conjunction with other groundwater issues [pumping, nitrate plume etc.] in the basin) on the water quality in the basin and surface water resources, and its effect on the native plant and animal species and their habitats need to be included in the EIS.

¹⁰ Fiedler 1991

Alternatives

The EIS must include a robust analysis of alternatives, including a private lands alternative and alternatives using other technologies including distributed generation. The stated objectives of the project must not unreasonably constrain the range of feasible alternatives evaluated in the EIS. The BLM must establish an independent set of objectives that do not unreasonably limit the EIS's analysis of feasible alternatives including alternative sites. At a minimum alternatives including the no-action alternative, an environmentally preferred alternative and an alternative where power generation is sited adjacent to power consumption need to be included.

Other Issues

The construction and operation of the proposed facilities will also increase greenhouse gas emissions and those emissions should be quantified and off-set. This would include the manufacture and shipping of components of the project and the car and truck trips associated with construction and operations. Similarly, such activities will also impact air quality and traffic in the area and these impacts should be disclosed, minimized and mitigated as well. For mobile sources, since consistency with the AQMP will not necessarily achieve the maximum feasible reduction in mobile source greenhouse emissions, the EIS should evaluate specific mitigation measures to reduce greenhouse emissions from mobile sources.

Fire Impacts

Because the any industrial project increases the potential for human-caused fire to occur on site, fire prevention including best management practices must be addressed and clearly identified in the EIS - not only on-site protection of resources, but also preventing fire from moving into the adjacent lands. Fire is incredibly detrimental to desert ecosystems, resulting in degradation of the habitat and if frequently reburned results in a type conversion to non-native vegetation¹¹.

Non-Native Plants

The EIS must identify and evaluate impacts to species and ecosystems from invasive exotics species. Many of these species invade disturbed areas, and then spread into wildlands. Fragmentation of intact, ecologically functioning communities further aides the spread and degradation of plant communities¹². These factors for wildland weed invasions are present in the project, and their effect must be evaluated in the EIS. Additionally, landscaping with exotic species is often the vector for introducing invasive exotics into adjacent habitats. Invasive landscape species displace native vegetation, degrade functioning ecosystems, provide little or

¹¹ Brooks and Draper 2006

http://www.nps.gov/moja/naturescience/upload/Fire%20congress%202006_brooks%20and%20draper_extended%20abstract.pdf

¹² Bossard et al 2000

no habitat for native animals, and increase fire danger and carrying capacity¹³ and should be banned from the project site.

Wildlife Movement

Because the project site is located within an identified California Essential Habitat Connectivity corridor¹⁴, a thorough and independent evaluation of the project's impacts on wildlife movement is essential. The EIS must evaluate all direct, indirect, and cumulative impacts to wildlife movement corridors. The analysis should cover movement of large mammals, as well as other taxonomic groups, including small mammals, birds, reptiles, amphibians, invertebrates, and vegetation communities. The EIS should first evaluate habitat suitability within the analysis window for multiple species, including all listed and sensitive species. The habitat suitability maps generated for each species should then be used to evaluate the size of suitable habitat patches in relation to the species average territory size to determine the appropriate size and location of linkages and that they provide both live-in and move-through habitat. The analyses should also evaluate if suitable habitat patches are within the dispersal distance of each species. The EIS should address both individual and intergenerational movement (i.e., will the linkages support metapopulations of smaller, less vagile species). The EIS should identify which species would potentially utilize the proposed wildlife movement corridors under baseline conditions and after build out, and for which species they would not. In addition, the EIS should consider how wildlife movement will be affected by other planned approved, planned, and proposed development in the region as part of the cumulative impacts.

The EIS should analyze any proposed on-site wildlife movement corridors are wide enough to minimize edge effects and allow natural processes of disturbance and subsequent recruitment to function. The EIS should also evaluate whether the proposed wildlife movement corridors would provide key resources for species, such as host plants, pollinators, or other elements. For example, many species commonly found in washes depend on upland habitats during some portion of their cycle. Therefore, in areas with intermittent or perennial streams, upland habitat protection is needed for these species. Upland habitat protection is also necessary to prevent the degradation of aquatic habitat quality.

Cumulative Impacts

Because of the number of currently permitted and proposed projects in the projects' vicinity, the region, and the CDCA, a thorough analysis of the cumulative impacts from all of these projects on the resources needs to be included. Because the project site is within a proposed solar development zone in BLM's Draft Programmatic EIS for solar energy, projects located in the zone have the potential to cumulatively significantly impact the existing biological resources and ecological processes that currently exist within the zone. To date several projects have been permitted in the general vicinity, including the Desert Sunlight project directly to the north and the Genesis project to the east. Other proposed projects are well into the environmental review

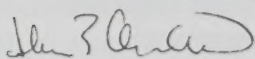
¹³ Brooks 2000

¹⁴ <http://bios.dfg.ca.gov/>

process, including the Palen project which recently changed from a solar thermal project to a PV project and therefore requires a reanalysis of project footprint and impacts. Additionally numerous other applications are included in the area. While the zone may be appropriate for some renewable energy development, especially on already disturbed private lands, the EIS must evaluate if the cumulative impact from the projects will cause significant unmitigable impacts not only to the zone but to the surrounding resources including Joshua Tree National Park, which already is impacted by border development on the south, east and west boundaries, as well as BLM identified Areas of Critical Environmental Concern (ACECs), Wildlife Habitat Management Areas (WHMAs) and federally designated Wilderness.

Thank you for your consideration of these comments. Please add us to the distribution list for the EIS and all notices associated with this project.

Sincerely,



Ileene Anderson
Biologist/Public Lands Desert Director
Center for Biological Diversity

cc via email

Brian Croft, USFWS, Brian_Croft@fws.gov
Kevin Hunting, CDFG KHunting@dfg.ca.gov
Tom Plenys, EPA, Plenys.Thomas@epa.gov

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October 13, 2011

Lynnette Elser,
Planning and Environmental Coordinator
22835 Calle San Juan de Los Lagos,
Moreno Valley, CA
92553

lelser@blm.gov

Dear Ms Elser,

Please accept the following scoping comments for the Desert Harvest Project CASE FILE
NUMBER: CACA-49491

Basin and Range Watch is a group of volunteers who live in the deserts of Nevada and California, working to stop the destruction of our desert homeland. Industrial renewable energy companies are seeking to develop millions of acres of unspoiled habitat in our region. Our goal is to identify the problems of energy sprawl and find solutions that will preserve our natural ecosystems and open spaces. We have visited the site of the Desert Harvest Solar project site and believe it would damage the resources of the area.

Purpose and Need: The Purpose and Need Statements in many BLM big solar EIS documents reflect a need to develop so many megawatts on so many acres of public lands. All alternatives are now defined by a Need reflecting the recent Secretarial Order 3283: Enhancing Renewable Energy Development on Public Lands.

The goals of Section 4 in Secretarial Order 3283 clearly state a need for environmental responsibility: *"the permitting of **environmentally responsible** wind, solar, biomass, and geothermal operations and electrical transmission facilities on the public lands;*

The Desert Harvest Solar Project in its proposed location would impact the desert tortoise, other wildlife, cultural resources, private property and Joshua Tree National Park. It would be inconsistent with the Best Management Practices concerning the National Environmental Policy Act, the Endangered Species Act, and the Federal Lands Management Policy Act, etc and can, in no way, be considered "environmentally responsible".

We would like to request that the Purpose and Need Statement reflect a need to protect and preserve habitat for sensitive species, preserve important ecological habitats, and to preserve sensitive cultural resources.

Alternatives:

A full range of alternatives should be considered in every EIS document. That is required by NEPA. This seems to be one of the biggest problems with most of them.

Following the guidelines of the National Environmental Policy Act, the final EIS should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public. In this section agencies shall:

(a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.

(b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.

(c) Include reasonable alternatives not within the jurisdiction of the lead agency.

(d) Include the alternative of no action.

(e) Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.

(f) Include appropriate mitigation measures not already included in the proposed action or alternatives.

Alternatives for the Desert Harvest Project should include:

1. A No Action Alternative that designates a proposed site inappropriate for solar energy development.
2. Alternatives not within the jurisdiction of the lead agency. These should include a Distributed Generation Alternative and a Private Land Alternative. As pointed out above, these alternatives are required to be considered under NEPA. Recent "mandates" by the Interior Department discourage these alternatives, but these are worded carefully using terminology like "recommends". The fact is that there are no mandates that say that BLM can not consider an off site alternative to an individual project like the Desert Harvest Project. In fact, failure to do so when it is requested may be a violation of the National Environmental Policy Act.

In its original scoping letter on the recent Solar Programmatic Environmental Impact Statement, The Environmental Protection Agency has identified hundreds of thousands of acres of degraded and contaminated sites around the country which could generate up to 920,000 MW of solar generation.

3. Site Specific Alternatives which could be an alternative that avoids cultural sites, private lands or sensitive species. An alternative away from Joshua Tree National Park should be considered.
4. **OUR PREFERRED ALTERNATIVE** would be a No Action Alternative that designates a conservation status to the proposed project site. This alternative would also designate the site inappropriate for solar energy development.

5. Smart Solar Energy:

Distributed generation in the built environment should be given much more full analysis, as it is a completely viable alternative. This project will need just as much dispatchable baseload behind it, and also does not have storage. But environmental costs are negligible with distributed generation, compared with this project. Distributed generation cannot be "done overnight," but neither can large transmission lines across hundreds of miles from remote central station plants to load centers. Most importantly, distributed generation will not reduce the natural carbon-storing ability of healthy desert ecosystems, will not disturb biological soil crusts, and will not degrade and fragment habitats of protected, sensitive, and rare species.

Alternatives should be looked at that are in load centers, not closest to the project site. There is a need to consider the "macro" picture, the entire state, to look at maximum efficiency.

A master comprehensive plan should exist before large expensive inefficient solar plants are sited and built out in the wildlands. This plan should carefully analyze the recreational and biodiversity resources of the Mojave Desert. A list of assumptions should be included detailing the plan for integrating various fuels mixes and technologies into each utility's plan, an overall state plan, and a national plan. Loads should be carefully analyzed to determine whether additional capacity is needed for peaking, intermediate, or baseload purposes. Unit size, which impacts capital and operating costs and unit capacity factors, has a direct bearing on the relative economics of one technology over another. A plan might recommend that smaller units built in cities and spaced in time offer a less risky solution than one large unit built immediately.

Right now there is no utility plan, no state plan, and no national plan. Large-scale central station energy projects have been sited very far from load centers out in remote

deserts, with the only criterion being nearness to existing transmission lines and natural gas lines. Very little thought has been given to the richness of biological resources, the cumulative impacts on visual scenery to tourists, the proximity to ratepayers, or the level of disturbance of the site.

The California Energy Commission says they will be a need to build many new efficient natural gas peaker or baseload plants to back up the renewable projects planned. Instead, the renewables should be distributed generation in load centers, which will provide much more efficiency, rather than inefficient remote central station plants that reduce biodiversity and require expensive transmission lines. This reduces the risk, as distributed generation is a known technology and has been proven in countries like Germany where incentive programs have been tested. Incentive programs can be designed in an intelligent manner to vastly increase distributed generation. Incentives for large remote projects are unproven to lower risk and may actually raise debt levels with runaway costs associated with poor siting and higher-than-anticipated operating and maintenance costs.

Many renewable project developers have failed to consider reasonable or viable alternatives that could serve as solutions that everybody could live with. In the case of this particular project, conflicts with endangered species, cultural resources, storm water drainage erosion, views from National Parks and wilderness areas could all be avoided with a distributed generation alternative.

Proposed Action, Affected Environment and Environmental Consequences:

Air Quality:

Construction activity will go on for 2 to 3 years and will add to the cumulative impacts on air quality that have been inflicted upon the region by the adjacent Desert Sunlight Project.

The DEIS will need to analyze the health impacts that airborne particulates from construction dust will have on the local residents of the area. Valley Fever is a common issue that impacts desert communities when dust is stirred up.

Removal of stabilized soils and biological soil crust creates a destructive cycle of airborne particulates and erosion. As more stabilized soils are removed, blowing particulates from recently eroded areas act as abrasive catalysts that erode the remaining crusts thus resulting in more airborne particulates.

The DEIS should analyze the cumulative impacts on air quality that will result from the removal so much stabilized soil and biological soil crust.

Greenhouse Gases and Climate Change:

The DEIS should quantify the amount of GHG used for construction. How many pounds/tons of fossil fuel will be used? How much fossil fuel will vehicles use for construction, commuters to work, etc? Multiply these factors by a 30 year lifespan of the project.

Transmission line upgrades and new transmission facilities may increase the use of the green house gas called SF6 is used primarily in electricity transmission - and is emitted in especially large amounts in construction of new lines – and is 24,000 times as potent as CO2 in its global warming impacts. The Environmental Protection Agency has declared “that the electric power industry uses roughly 80% of all SF6 produced worldwide”. Ideally, none of this gas would be emitted into the atmosphere. In reality significant leaks occur from aging equipment, and gas losses occur during equipment maintenance and servicing. With a global warming potential 23,900 times greater than CO2 and an atmospheric life of 3,200, one pound of SF6 has the same global warming impact of 11 tons of CO2. In 2002, U.S. SF6 emissions from the electric power industry were estimated to be 14.9 Tg CO2 Eq. ...

<http://www.epa.gov/electricpower-sf6/basic.html>

Please provide a more detailed analysis of the amount of SF6 gases that would be released by this project.

Will commuters be driving gas powered vehicles to and from work in a rural area for the next 30 years or however long the lifespan of the project is? How much green house gas is this? The Ivanpah Solar Electric Generating System is undergoing construction at this time. Approximately 250 vehicles commute to and from work every day from distances as far as Barstow, California.

Carbon Sequestration and removal of plants, caliche layers and biological soil crust would all be removed for this project. The DEIS should address the potential impacts of removal of these features. Will the new energy plant actually offset greenhouse gases?

Problems associated with hundreds of workers:

Construction of this project would bring hundreds of new people to the area. With these people may come law enforcement problems. These problems may include illegal off-roading, vandalism to private property, harassment of wildlife and other undesired behavior.

Hazardous Materials:

Cadmium-Telluride

The DEIS should outline the environmental consequences of a potential CdTe pollution event and how it could impact public health, water resources and flora and fauna.

When the fire studies were conducted, were the panels flat during the study so the glass wouldn't slide apart in a fire scenario? Another study should be conducted when panels are in a more diagonal position.

Under the current California Department of Toxic Substances Control regulations, the modules EnXco is considering using are considered hazardous waste when they reach the end of their life. It would not be accurate to claim they are risk free.

Please make available in the DEIS the breakage and failure rates from other CdTe power plants to get a better approximation of how often breakage occurs on site. First Solar had to recall almost 5% of their modules over some period in 2008 or 2009, so the breakage rate probably goes up when they all have to be taken down and tested.

If EnXco decides to sell the Desert Harvest Project, how would they be inspecting the panels for breakage? What are the criteria for determining that panels are broken?

The Norwegian Geotechnical Institute conducted recent tests on the leaching potential of CdTe from broken PV modules and PV placed in landfills. They conclude:

"The availability test on grounded CdTe PV module material shows a high leaching of both Cd and Te, thus the material exhibits a high maximum leaching release potential of these elements even at the solution's high PH level (P.H. 7.7)"

and

"All three conducted leaching tests show that when CdTe in the module was exposed to water, the thin film CdTe dissolves. The extent of the leaching is thus dependent on the "availability" of the CdTe film. Normally the CdTe is protected by glass layers in the PV module. Weathering and possible destruction of the modules during use or end disposal may lead to exposure of the CdTe film, and subsequent increased leaching of CdTe into the environment."

A study from the Wuppertal Institute, Norway also concludes:

"The conclusion of this paper is that recent independent laboratory analyses conducted on CdTe PV modules confirm that these present a threat to the environment and health if disposed of in an improper and unprofessional way. These analyses also hint at possible, though less probable, cadmium leakages during the use phase in case of shattered protective glass exposing the CdTe film to natural precipitations. The only way to rule out the risks associated with the use of cadmium in PV is to refrain from using cadmium in the first place. This requires non-toxic substitutes to be readily available, which they are (e.g. silicon-based photovoltaics). Cadmium should not spread in "green" solar technologies, but need to be disposed of safely." ...Appraisal of laboratory analyses conducted

on CdTe photovoltaic modules-Mathieu Saurat, Michael Ritthoff; Wuppertal Institute, August 2010

The California Division of Toxic Substance Control is also proposing new rules that would say that a cracked or damaged PV panel is not necessarily end of its life. That would allow EnXco, or whoever will own the project, to leave several damaged panels out on the site. This could create a situation where a damaged panel or several can leach CdTe into the environment.

Invasive Weeds:

Even with the best management practices, the blading, scraping and additional development of new roads, transmission, etc. will create a very large opportunity for non-native plants to colonize the project site. Problems could arise with the following species:

Russian thistle (*Salsola tragus*)

Sahara Mustard (*Brassica tournafortii*)

Red brome (*Bromus rubens*)

Orchardgrass (*Dactylis glomerata*)

September 29, 2010 - At a California Energy Commission workshop for the Palen Solar Power Project located near Desert Center, California on September 27, CEC botanist Carolyn Chaney Davis told Solar Millennium, the project applicant, that there was a big concern over weeds taking over newly disturbed desert ground at both the Blythe Solar Power Project and at Palen. Chaney Davis had spent much time out in the field at the Blythe project site with preeminent tortoise biologist and desert ecologist Dr. Kristin Berry, who worried over the spread of the rampaging weed Sahara mustard (*Brassica tournefortii*).

The big concern at Blythe was the spread of weeds along the new "linears," the transmission lines needed to tie the giant solar thermal project to the grid. Berry was emphatic that Sahara mustard spread must be taken much more seriously. Transmission lines act as superhighways for its expansion into desert habitat.

Chaney Davis explained that revegetation after disturbance, such as when the power plant is decommissioned in 30 years, does not usually work in this arid region. So she stressed weed management from the start. Instead of imprinting or planting creosote, the desert should be restored by preserving the topsoil and seedbank. Disrupting biotic soil crusts allows weeds to gain a foothold and increase.

The companies need to manage outbreaks of weeds that happen after initial soil disturbance. A revegetation plan would also include mulching temporary roads after use so the off-roaders do not use them, further spreading weed seeds on tires. The Energy Commission was worried about spread of Sahara mustard into the tortoise Critical

Habitat in Chuckwalla Desert Wildlife Management Area. The weeds can grow so densely that the reptiles cannot move through them, and the mustards displace more palatable native wildflowers.

California Department of Fish and Game recommends a 10-year monitoring period to make sure revegetation is progressing. A 2 or 3 year period is not long enough, as only pioneer plants would be colonizing the disturbed ground. A trend towards climax vegetation would longer to see.

The herbicide, Roundup is commonly used to control weeds.

The following hazards are reported from the use of the herbicide, Roundup:

Problems with Roundup Weed Control

Subject: The 10 reasons, roundup. From: "John A. Keslick, Jr." treeman@pond.com Date: Tue, 29 Apr 2000 06:49:46

Compiled by Caroline Cox, Northwest Coalition for Alternatives to Pesticides- (NCAP)

Roundup, and related herbicides with glyphosate as an active ingredient, are advertised as products that can "eradicate weeds and unwanted grasses effectively with a high level of environmental safety." However, an independent, accurate evaluation of their health and environmental hazards can draw conclusions very different from those presented in the ads. Consider these facts:

1. Glyphosate can be persistent. In tests conducted by Monsanto, manufacturer of glyphosate-containing herbicides, up to 140 days were required for half of the applied glyphosate to break down or disappear from agricultural soils. At harvest, residues of

glyphosate were found in lettuce, carrots, and barley planted one year after glyphosate treatment.

2. Glyphosate can drift. Test conducted by the University of California, Davis, found that glyphosate drifted up to 400 meters (1300 feet) during ground applications and 800 meters (2600 feet) during aerial applications.

3. Glyphosate is acutely toxic to humans. Ingesting about 3/4 of a cup can be lethal. Symptoms include eye and skin irritation, lung congestion, and erosion of the intestinal tract. Between 1984 and 1990 in California, glyphosate was the third most frequently reported cause of illness related to agricultural pesticide use.

4. Glyphosate has shown a wide spectrum of chronic toxicity in laboratory tests. The National Toxicology Program found that chronic feeding of glyphosate caused salivary gland lesions, reduced sperm counts, and a lengthened estrous cycle (how often an individual comes into heat). Other chronic effects found in laboratory tests include an increase in the frequency of lethal mutations in fruit flies, an increase in frequency of pancreas and liver tumors in male rats along with an increase in the frequency of thyroid tumors in females, and cataracts. (The fruit fly study used Roundup; the other studies used glyphosate.)

5. Roundup contains toxic trade secret ingredients. These include polyethoxylated tallowamines, causing nausea and diarrhea, and isopropylamine, causing chemical pneumonia, laryngitis, headache, and burns.

6. Roundup kills beneficial insects. Tests conducted by The International Organization for Biological Control showed that Roundup caused mortality of live beneficial species: a Thrichogramma, a predatory mite, a lacewing, a ladybug, and a predatory beetle.

7. Glyphosate is hazardous to earthworms. Tests using New Zealand's most common earthworm showed that glyphosate, in amounts as low as 1/20 of standard application rates, reduced its growth and slowed its development.

8. Roundup inhibits mycorrhizal fungi. Canadian studies have shown that as little as 1 part per million of Roundup can reduce the growth or colonization of mycorrhizal fungi.

9. Glyphosate reduces nitrogen fixation. Amounts as small as 2 parts per million have had significant effects, and effects have been measured up to 120 days after treatment. Nitrogen-fixing bacteria shown to be impacted by glyphosate include a species found on soybeans and several species found on clover.

10. Roundup can increase the spread or severity of plant diseases. Treatment with Roundup increased the severity of Rhizoctonia root rot in barley, increased the amount and growth of take-all fungus, a wheat disease, and reduced the ability of bean plants to defend themselves against anthracnose.

These facts about Roundup are taken From a two-part article about the health and environmental hazards of glyphosate published in NCAP's Journal of Pesticide Reform. Copies of the article, with complete references for all of the information presented, are available from NCAP for \$2.00. NCAP, PO Box 1391; Eugene, OR 97440; (541) 344-5044.

Please evaluate the full impacts Roundup would have on the local natural and human environment.

Biological Resources:

Desert Tortoise (*Gopherus agassizii*)

The proposed project site will remove 1,200 acres of a connectivity corridor of desert tortoise habitat. The site represents a linkage between the Fish and Wildlife Service designated Colorado Recovery Unit and the West Mojave Recovery Unit. It also represents an important connectivity habitat between the Chuckwalla Desert Wildlife Management Area (DWMA)/Critical Habitat and the Joshua Tree Desert Wildlife Management Area/Critical Habitat. The revised recovery plan also makes the following statement concerning the importance of gene-flow in Recovery Units:

*“(a) **Genetic variation.** Gene flow is the result of dispersal accompanied by successful reproduction and incorporation of genes in a population. Ultimately, gene flow governs the amount of genetic connectivity among populations. A lack of gene flow will allow populations to differentiate over time by means of genetic drift and natural selection. Desert tortoises possess characteristics that potentially allow for high levels of gene flow among populations. For example, individuals have the ability to move long distances (Berry 1986; Edwards et al. 2004a). The capability for long-distance dispersal, combined with longevity and opportunities to reproduce annually throughout adulthood, indicates high potential for gene exchange outside of local areas. Free genetic exchange will be constrained, however, by the large distributional range of the tortoise given the relatively much smaller home range size and dispersal ability (isolation-by-distance phenomenon; see Allendorf and Luikart 2007:209). Topographic features (e.g., mountain ranges) and other potential barriers (e.g., impassable habitat types, extreme climate conditions) can structure regional populations and lead to variable exchange of migrants among populations.” (pg 55)*

Approval of this Right of Way could block a portion of this connectivity zone:

Niche modeling and implications of climate change on desert tortoises and other selected reptiles within Joshua Tree National Park , Cameron W. Barrows, University of California, Riverside, 28th September, 2009

Suitable desert tortoise habitat under current climate conditions was mapped in all but the highest elevation and or most rugged regions of Joshua Tree National Park .Under increasing summer temperatures and reduced annual precipitation scenarios, that suitable habitat initially increases However under more extreme climate shifts the models indicate that suitable habitat for tortoises would become reduced and more fragmented, with much of the central and southern portions of the Park no longer supporting suitable habitat. (pg 7)

Of the species analyzed, the threatened desert tortoise has been a focus of protection and conservation related research throughout the Mojave Desert (Doak et al. 1994, Chaffee and Berry 2006, Wallace and Thomas 2008). Desert tortoises occur in the Mojave and Sonoran Deserts; within the Sonoran Desert, the majority of their distribution is associated with regions typified by summer monsoon rain patterns; whereas the Mojave Desert's highly variable colder winter-dry summer climate may be a source of stress to the tortoises, and be a contributor to recent population declines (Curtin et al. 2009). Within Joshua Tree National Park, the Colorado Desert subdivision of the Sonoran Desert is drier and hotter still and so may constitute an even more marginal climate for tortoises. With this as a framework for current conditions, a climate shift toward a still more variable, hotter-drier condition would likely further stress the Park's tortoise population. An important component of that stress could be more frequent drought (Parmesan et al. 2000), reducing the availability of annual plants (Wallace and Thomas 2008), which are the tortoises' primary food (Jennings 2002). (pg 17)

While resilient to the evaluated least severe climate change increment, under more severe climate shifts the tortoise niche model indicated a reduction of 9-49% in suitable habitat within the Park. There was also increasing fragmentation; and assuming that a sustainable tortoise population would require at least 1000-5000 ha of contiguous suitable habitat, there could be a more biologically relevant reduction of 76-83% less in available habitat than the current condition.

Desert tortoises within this region rarely range below 500 m elevation. . In extremely arid deserts variation in annual precipitation is high; long periods of drought are often broken with rare pulses of wet conditions (Noy-Meir, 1973; Bell, 1979; MacMahon, 1979), so as the region gets drier drought frequency will likely increase. For annual plant-eating tortoises this would mean extended periods with no food available, and in part would explain the tortoises' absence from lower elevations. Chuckwallas more often forage on perennial trees and shrubs (Kwiatkowski and Sullivan 2002), plants with deeper root systems and so less impacted by short term variation in rainfall. (pg 17,18)

Barrows recommends maintaining these connectivity zones:

- 1. Maintaining connectivity to regions outside the Park, especially to the cooler wetter northwest, may provide genetic connections to larger populations outside the Park and so improve the sustainability of those populations inside the Park.*

2. Taking a longer temporal view, these corridors could provide linkages for reestablishment of species once anthropogenic climate warming is abated.

3. Focus management efforts within the Park on maintenance of areas identified in this study as climate change refugia in order to provide the best potential habitat for those at-risk species. These management efforts may include controlling exotic vegetation and fires (see E. Allen and colleagues).

5. Finally, the development of a monitoring program that will provide empirical data on how species and communities within the Park are responding to changes in habitats, including those catalyzed by climate, will be extremely valuable for reinforcing management actions. Such a monitoring program could be implemented through a citizen science outreach program (i.e. Sullivan et al. 2009, Howard and Davis 2009). These programs have the potential to provide quality data and relatively low costs, and to strengthen a public support cadre for the Park in the face of increasing challenges to the Park from surrounding development proposals. (pg. 18,19)

Due to the controversy associated with desert tortoise translocation, we would like to request that BLM consider an alternative away from the Proposed Alternative which is located adjacent to the Chuckwalla Critical Habitat for desert tortoise. The below numbers from the Fish and Wildlife Service indicate 50 percent mortality from translocation of desert tortoise.

- Tortoises handled for blood testing will have 5% mortality rate from handling.**
- Tortoises translocated will have a 50% mortality rate.**
- Resident Tortoises on the recipient site will also have a 50% mortality rate due to competition from translocated tortoises.**

Golden Eagle Nest Surveys: EnXco should be required to conduct their own golden eagle nest surveys instead on relying on data from other projects as suggested in the Plan of Development. At this time, that data may be outdated from surveys conducted by Solar Millennium and First Solar.

The loss of foraging habitat is considered a "Take" under the Bald and Golden Eagle Protection Act.

There are six active golden eagle nests within 20 miles of the site. The closest active territory is located one and a half miles from the project boundary, and one Golden Eagle was observed flying south of I-10 in Chuckwalla Valley in the vicinity of the Red Bluff substation during surveys.

Polarized Glare:

The polarized reflection of sprawling PV facilities assumes the appearance of a large body of water. This can potentially be a death trap in the California Desert. Desert. Birds and insects can use up energy to get to water and end up dying of dehydration.

The Nature Conservancy has just released their Mojave Desert Ecoregional Assessment. In the assessment, they discuss the impacts of polarized light pollution on birds and insects: "Light and noise pollution associated with electrical power plants can be problematic for wildlife. Polarized light pollution from PV panels can attract aquatic insects and other species that mistake the panels for bodies of water, potentially leading to population decline or even local extinction of some organisms (Horvath et al. 2010). Nighttime lighting for security or other reasons may negatively impact a variety of Mojave Desert species, many of which have developed nocturnal behavior to escape the daytime heat of the desert. (*Mojave Desert Ecoregional Assessment September 2010, The Nature Conservancy of California 201 Mission Street, 4th Floor San Francisco, CA 94105*) p. 50"

Bighorn Sheep (*Ovis canadensis nelsoni*) and **Burro Deer** (*Odocoileus hemionus eremicus*).

Bighorn sheep and burro deer are both BLM species of Special Concern.

Local land owners have told us through personal communication that bighorn sheep have visited agricultural lands near the project site.

Burro deer have also been seen on the site. The site represents an important connectivity zone for both of these species. Removal of 1,200 acres of this habitat will impair long term connectivity for both species.

Bighorn biologists Dr. John Wehausen and Dr. Vern Bleich have concluded that radio telemetry studies of bighorn sheep in various southwestern deserts, including the Mojave Desert of California, have found considerable movement of these sheep between mountain ranges.... Consequently, intermountain areas of the desert floor that bighorn traverse between mountain ranges can be as important to the long-term viability of populations as are the mountain ranges themselves.

Alluvial fans near steep rocky terrain can provide crucial foraging habitat for big horn sheep (Wehausen 2009)

For example, ewes at the end of gestation that need nutrients may come down from steep, rocky terrain looking for higher quality forage. They might use areas like the

project site for only three weeks, but those three weeks are critical. The Chuckwalla Valley might also provide important movement corridors for deer and bighorn sheep. Wildlife corridors are present through and adjacent to the Desert Harvest Site .

“Radio telemetry studies of bighorn sheep in various southwestern deserts, including the Mojave Desert of California, have found considerable movement of these sheep between mountain ranges (Bleich et al., 1990b). This is especially true of males, but also of ewes (Bleich et al., 1996). Within individual mountain ranges, populations often are small (Table 1). Levels of inbreeding could be high in such populations, but intermountain movements provide a genetic connection with a larger metapopulation, and this will counteract potential inbreeding problems (Schwartz et al., 1986; Bleich et al., 1990b). Intermountain movements also are the source of colonization of vacant habitat, which is fundamental to metapopulation dynamics and persistence. Colonization by ewes is the slow link in this process, but has recently been documented in two Mojave Desert ranges in California (Bleich et al., 1996; Torres et al., 1996). Consequently, intermountain areas of the desert floor that bighorn traverse between mountain ranges are as important to the long term viability of populations as are the mountain ranges themselves (Schwartz et al., 1986; Bleich et al., 1990b, 1996).”

The Society for the Conservation of Big Horn Sheep notes that a pre-construction baseline of big-horn sheep use should be established, followed by intensive monitoring during construction and follow-up post construction. They advocate a 1.5 mile buffer zone from the project border to the toe of the sloping mountain areas, to help connectivity of the local population and maintain the metapopulation dynamic at work with this sheep population. A wildlife corridor is absolutely essential for a healthy and viable population and for a healthy gene pool exchange, and that the buffer zone would establish a guideline or benchmark for any future development and additional loss of habitat.

Palm Springs round-tailed ground squirrel (*Spermophilus tereticaudus chlorus*)

The DEIS will need to outline a plan that provides avoidance and mitigation for this species.

Desert Leafcutting Ant (*Acromyrmex versicolor*)

The project area is the only know location for California's only Leafcutter ant species. A full analysis of the impacts to this species concerning habitat loss should be provided in the DEIS.

Plant Communities and Rare Plants:

Approval of this project would remove of 1,200 acres of Creosote Bush-White Bursage and Blue Palo Verde-Ironwood-Smoke Tree communities.

The cumulative impacts of this project and the Desert Sunlight project could negatively impact the following plants:

Foxtail cactus *Coryphantha alversonii*,
Emory's crucifixion thorn (*Castela emoryi*),
Las Animas colubrina (*Colubrina californica*),

California ditaxis (*Ditaxis serrata* var. *californica*),
Desert unicorn plant (*Proboscidea althaeifolia*),
Slender-spined allthorn (*Koeberlinia spinosa* ssp. *tenuispina*),

Biological Soil Crusts

Soil biological crust is a mix of organisms that occupy and protect the surface of the soil in most desert ecosystems. The organisms often include filamentous and non-filamentous cyanobacteria, mosses, lichens, liverworts and fungi.

The following publication should be reviewed by the BLM and the applicant's consulting biologists:

A Field Guide to Biological Soil Crusts of Western U.S. Drylands ;Common Lichens and Bryophytes. Roger Rosentreter, Matthew Bowker, Jayne Belnap

They say the following concerning biological soil crusts:

"Biological Soil Crusts are found on almost all soil types. Green algae are favored on more acidic and less salty soils, whereas cyanobacteria are favored on alkaline soils and soils with high salt content. Within a given climate zone, the cover of lichens and mosses generally increases with higher clay and silt content and lower sand content, as this also increases the stability and water-holding capacity of the soil. However, BSC cover and development is limited on clay soils with a high shrink-swell coefficient. Habitats within a site that are more moist (e.g., under plant canopies and thin plant litter or on north/northeast exposures) generally support a greater cover of lichens and mosses."

And:

"Ecological function:

The presence of these organisms on the soil surface increases soil stability. Because they are photosynthetic they also contribute carbon to the underlying soils. Free-living and lichenized cyanobacteria can also convert atmospheric nitrogen into bio-available nitrogen, and thus are an important source of this often limiting nutrient. All these organisms also secrete compounds that increase the bio-availability of phosphorus. Lichen morphological types with a more discontinuous cover (crustose, squamulose) allow water, gases, and seedlings to pass through to the soil surface, whereas mosses and lichens with a more continuous cover (foliose, fruticose) often block the flow of materials to the soil surface."

How will the loss of biological soil crust be mitigated?

Visual Resources:

The BLM should require KOP simulations that depict all of the visual impact scenarios. All of the most potentially visible angles of light and time of day should be considered to depict the worst case scenario.

KOP simulations should capture the “lake appearance” of reflective PV facilities. Too many simulations for solar projects only depict the panels as looking dark and solid black.

The following BLM required factors will need to be considered:

Angle of Observation. The apparent size of a project is directly related to the angle between the viewer's line-of-sight and the slope upon which the project is to take place. As this angle nears 90 degrees (vertical and horizontal), the maximum area is viewable.

Length of Time the Project Is In View. If the viewer has only a brief glimpse of the project, the contrast may not be of great concern. If, however, the project is subject to view for a long period, as from an overlook, the contrast may be very significant.

Relative Size or Scale. The contrast created by the project is directly related to its size and scale as compared to the surroundings in which it is place.

The 1,200 acre size of the project is large and will have the potential to cumulatively impact different VRM zones of different classes.. BLM defines the objective of this class *“to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention”*.

We would like to request that the following Key Observation Point simulations be included in the DIES:

- Three KOP simulations from Joshua Tree National Park.
- One KOP simulation from the Chuckwalla Wilderness Area
- Two dark sky KOP's from different locations depicting security lighting.
- At least one KOP Simulation from private property.
- At least one KOP simulation depicting dust plumes from the construction of the project.

Impacts to Joshua Tree National Park:

The project would be built very close to the boundary Joshua Tree National Park. The industrial cumulative impacts of two major solar projects will change the character of the park forever and could impact future tourism potential.

The Joshua Tree National Park General Management Plan:

<http://www.nps.gov/jotr/parkmgmt/gmp.htm> makes the following conclusions about activities adjacent to the park that can have negative impacts:

“Developments and other land uses adjacent to the boundary threaten the integrity of the park's resources, views and wilderness values. Surrounding land use has changed significantly since creation of the monument. Subdivisions, utility corridors, mining, military facilities, and agricultural interests are, in some cases, right along the boundary. Eagle Mountain Landfill has been proposed near the southeast boundary. Concerns include impacts to the desert tortoise and other wildlife, trash blowing, leaks and air quality degradation. Development would intrude on the scene and diminish the naturalness and solitude of the wilderness. Other concerns include effects from air and water pollutants, invasion of non-native species from adjacent lands, and noisy overflights that effect wilderness solitude. The park's resources are also seriously threatened by illegal activities and uncontrolled access along the boundaries, such as off road vehicle use, theft of desert vegetation and archeological resources, wood cutting and dumping of hazardous and domestic wastes.

Fulfillment of the biosphere reserve concept and long-term protection of ecological units that extend outside the boundary are also made more difficult by land use and development around the park. The boundaries were revised in the early 1950's to accommodate mineral extraction. The configuration that had been designed by biologists to protect the natural systems of two deserts has been destroyed in many areas. Consequently, wildlife and vegetation systems were fragmented by uses such as hunting and mining and other developments.”

Water: How much water (acre feet) will be used for construction and panel washing? What will the cumulative effects of aquifer drawdown be combined with the disturbance of the adjacent Desert Sunlight Project?

Will the alteration of stream channels cause localized flooding? Will stream channel alteration impact local groundwater recharge?

Cultural Resources:

Nearly all of the sites recorded in the area as prehistoric have been described as having potential for subsurface manifestation. In addition to their individual research potential properties, the distribution of many of these sites in conjunction with other prehistoric sites recorded between Desert Center and Blythe may provide links between vestiges of the Coco-Maricopa trail system as well as clues to activities associated with transportation along that

route. As such, these sites could be considered as part of a complex archaeological district that would include evidence of trade, travel, interaction among the several cultural groups associated with the area (Cahuilla, Chemehuevi, Mojave, Serrano), resource exploitation along travel routes, seasonality of habitation, and trail spurs between the primary coastal-interior route and the springs and associated rock art sites in the bordering mountain ranges.

The BLM will need to consult with the Cahuilla, Chemehuevi, Mojave, and Serrano nations to address their concerns. Many of these people feel the entire region is a "cultural site" including the view-scape, the water and the biological resources.

Socio-Economics:

Most of these projects promise to save local economies. Construction jobs are usually awarded to Union workers from large cities rather than local people. The average PV facility of this size will only create 5 to ten full time jobs. This will not save the economy. It will not make the community of Desert Center appealing for future residential purposes. It really is a short-term boom and bust fix to a complex economical problem. PV in the built environment would create a much longer, more sustainable need for installation and maintenance. Placing big solar plants on public lands is the wrong way to use solar energy. Ten percent of the power will be lost in transmission alone.

How would this impact property values and future real estate potential of the local community?

Conclusion:

Large solar energy boondoggles prioritized by the BLM will not survive on their own without federal subsidies. The only way these will pay for themselves will be through rate hikes of utility customers. These are all planned with short term benefits in mind. Construction will take place during the 2012 elections, but there is little economic future in the project after that. The BLM has become a mouthpiece agency for short term benefit energy companies. We are aware that these mandates come from the Interior Department, but the BLM needs to show responsibility and common sense. Approval of this project will cause long term environmental impacts and short term economic benefits. It is a lose/lose situation all around. Please support an alternative that determines No Action and designates conservation status to the proposed Right of Way.

Thank you,

Kevin Emmerich

Laura Cunningham

Basin and Range Watch

P.O. Box 70

Beatty, NV 89004

Audubon California
California Native Plant Society * California Wilderness Coalition
Center for Biological Diversity * Defenders of Wildlife
Desert Protective Council * Mojave Desert Land Trust
National Parks Conservation Association
Natural Resources Defense Council * Sierra Club * The Nature Conservancy
The Wilderness Society * The Wildlands Conservancy

Renewable Siting Criteria for California Desert Conservation Area

Environmental stakeholders have been asked by land management agencies, elected officials, other decision-makers, and renewable energy proponents to provide criteria for use in identifying potential renewable energy sites in the California Desert Conservation Area (CDCA). Large parts of the California desert ecosystem have survived despite pressures from mining, grazing, ORV, real estate development and military uses over the last century. Now, utility scale renewable energy development presents the challenge of new land consumptive activities on a potentially unprecedented scale. Without careful planning, the surviving desert ecosystems may be further fragmented, degraded and lost.

The criteria below primarily address the siting of solar energy projects and would need to be further refined to address factors that are specific to the siting of wind and geothermal facilities. While the criteria listed below are not ranked, they are intended to inform planning processes and were designed to provide ecosystem level protection to the CDCA (including public, private and military lands) by giving preference to disturbed lands, steering development away from lands with high environmental values, and avoiding the deserts' undeveloped cores. They were developed with input from field scientists, land managers, and conservation professionals and fall into two categories: 1) areas to prioritize for siting and 2) high conflict areas. The criteria are intended to guide solar development to areas with comparatively low potential for conflict and controversy in an effort to help California meet its ambitious renewable energy goals in a timely manner.

Areas to Prioritize for Siting

- Lands that have been mechanically disturbed, i.e., locations that are degraded and disturbed by mechanical disturbance:
 - Lands that have been “type-converted” from native vegetation through plowing, bulldozing or other mechanical impact often in support of agriculture or other land cover change activities (mining, clearance for development, heavy off-road vehicle use).¹
- Public lands of comparatively low resource value located adjacent to degraded and impacted private lands on the fringes of the CDCA:²
 - Allow for the expansion of renewable energy development onto private lands.
 - Private lands development offers tax benefits to local government.
- Brownfields:
 - Revitalize idle or underutilized industrialized sites.
 - Existing transmission capacity and infrastructure are typically in place.

- Locations adjacent to urbanized areas:³
 - Provide jobs for local residents often in underserved communities;
 - Minimize growth-inducing impacts;
 - Provide homes and services for the workforce that will be required at new energy facilities;
 - Minimize workforce commute and associated greenhouse gas emissions.
- Locations that minimize the need to build new roads.
- Locations that could be served by existing substations.
- Areas proximate to sources of municipal wastewater for use in cleaning.
- Locations proximate to load centers.
- Locations adjacent to federally designated corridors with existing major transmission lines.⁴

High Conflict Areas

In an effort to flag areas that will generate significant controversy the environmental community has developed the following list of criteria for areas to avoid in siting renewable projects. These criteria are fairly broad. They are intended to minimize resource conflicts and thereby help California meet its ambitious renewable goals. The criteria are not intended to serve as a substitute for project specific review. They do not include the categories of lands within the California desert that are off limits to all development by statute or policy.⁵

- Locations that support sensitive biological resources, including: federally designated and proposed critical habitat; significant⁶ populations of federal or state threatened and endangered species,⁷ significant populations of sensitive, rare and special status species,⁸ and rare or unique plant communities.⁹
- Areas of Critical Environmental Concern, Wildlife Habitat Management Areas, proposed HCP and NCCP Conservation Reserves.¹⁰
- Lands purchased for conservation including those conveyed to the BLM.¹¹
- Landscape-level biological linkage areas required for the continued functioning of biological and ecological processes.¹²
- Proposed Wilderness Areas, proposed National Monuments, and Citizens' Wilderness Inventory Areas.¹³
- Wetlands and riparian areas, including the upland habitat and groundwater resources required to protect the integrity of seeps, springs, streams or wetlands.¹⁴
- National Historic Register eligible sites and other known cultural resources.
- Locations directly adjacent to National or State Park units.¹⁵

EXPLANATIONS

¹ Some of these lands may be currently abandoned from those prior activities, allowing some natural vegetation to be sparsely re-established. However, because the desert is slow to heal, these lands do not support the high level of ecological functioning that undisturbed natural lands do.

² Based on currently available data.

³ Urbanized areas include desert communities that welcome local industrial development but do not include communities that are dependent on tourism for their economic survival.

⁴ The term "federally designated corridors" does not include contingent corridors.

⁵ Lands where development is prohibited by statute or policy include but are not limited to:

National Park Service units; designated Wilderness Areas; Wilderness Study Areas; BLM National Conservation Areas; National Recreation Areas; National Monuments; private preserves and reserves; Inventoried Roadless Areas on USFS lands; National Historic and National Scenic Trails; National Wild, Scenic and Recreational Rivers; HCP and NCCP lands precluded from development; conservation mitigation banks under conservation easements approved by the state Department of Fish and Game, U.S. Fish and Wildlife Service or Army Corps of Engineers; California State Wetlands; California State Parks; Department of Fish and Game Wildlife Areas and Ecological Reserves; National Historic Register sites.

⁶ Determining “significance” requires consideration of factors that include population size and characteristics, linkage, and feasibility of mitigation.

⁷ Some listed species have no designated critical habitat or occupy habitat outside of designated critical habitat. Locations with significant occurrences of federal or state threatened and endangered species should be avoided even if these locations are outside of designated critical habitat or conservation areas in order to minimize take and provide connectivity between critical habitat units.

⁸ Significant populations/occurrences of sensitive, rare and special status species including CNPS list 1B and list 2 plants, and federal or state agency species of concern.

⁹ Rare plant communities/assemblages include those defined by the California Native Plant Society’s Rare Plant Communities Initiative and by federal, state and county agencies.

¹⁰ ACECs include Desert Tortoise Desert Wildlife Management Areas (DWMAs). The CDCA Plan has designated specific Wildlife Habitat Management Areas (HMAs) to conserve habitat for species such as the Mohave ground squirrel and bighorn sheep. Some of these designated areas are subject to development caps which apply to renewable energy projects (as well as other activities).

¹¹ These lands include compensation lands purchased for mitigation by other parties and transferred to the BLM and compensation lands purchased directly by the BLM.

¹² Landscape-level linkages provide connectivity between species populations, wildlife movement corridors, ecological process corridors (e.g., sand movement corridors), and climate change adaptation corridors. They also provide connections between protected ecological reserves such as National Park units and Wilderness Areas. The long-term viability of existing populations within such reserves may be dependent upon habitat, populations or processes that extend outside of their boundaries. While it is possible to describe current wildlife movement corridors, the problem of forecasting the future locations of such corridors is confounded by the lack of certainty inherent in global climate change. Hence the need to maintain broad, landscape-level connections. To maintain ecological functions and natural history values inherent in parks, wilderness and other biological reserves, trans-boundary ecological processes must be identified and protected. Specific and cumulative impacts that may threaten vital corridors and trans-boundary processes should be avoided.

¹³ Proposed Wilderness Areas: lands proposed by a member of Congress to be set aside to preserve wilderness values. The proposal must be: 1) introduced as legislation, or 2) announced by a member of Congress with publicly available maps. Proposed National Monuments: areas proposed by the President or a member of Congress to protect objects of historic or scientific interest. The proposal must be: 1) introduced as legislation or 2) announced by a member of Congress with publicly available maps. Citizens' Wilderness Inventory Areas: lands that have been inventoried by citizens groups, conservationists, and agencies and found to have defined “wilderness characteristics.” The proposal has been publicly announced.

¹⁴ The extent of upland habitat that needs to be protected is sensitive to site-specific resources. For example: the NECO Amendment to the CDCA Plan protects streams within a 5-mile radius of Townsend big-eared bat maternity roosts; aquatic and riparian species may be highly sensitive to changes in groundwater levels.

¹⁵ Adjacent: lying contiguous, adjoining or within 2 miles of park or state boundaries. (Note: lands more than 2 miles from a park boundary should be evaluated for importance from a landscape-level linkage perspective, as further defined in footnote 12).

**Defenders of Wildlife
Natural Resources Defense Council
Sierra Club**

October 17, 2011

Lynnette Elser
Planning and Environmental Coordinator
California Desert District Office
Bureau of Land Management
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(via email to: CAdesertharvest@blm.gov; lelser@blm.gov)

Re: Notice of Intent to Prepare an Environmental Impact Statement for the Proposed enXco Desert Harvest Solar Farm Project, Riverside County, CA and Possible Land Use Plan Amendment

Dear Ms. Elser:

Thank you for the opportunity to provide scoping comments to help guide the preparation of a Draft Environmental Impact Statement ("DEIS") and Proposed Amendment to the California Desert Conservation Area ("CDCA") Plan for the proposed Desert Harvest Solar Farm Project. These comments are submitted on behalf of Defenders of Wildlife ("Defenders"), the Natural Resources Defense Council ("NRDC") and the Sierra Club, all non-profit public interest conservation organizations with offices in California as well as elsewhere in this country.

Defenders has 1.1 million members and supporters nationally, including 67,000 in California. Defenders is dedicated to protecting all wild animals and plants in their natural communities. To this end, we employ science, public education and participation, media, legislative advocacy, litigation, and proactive on-the-ground solutions in order to impede the accelerating rate of extinction of species, associated loss of biological diversity, and habitat alteration and destruction.

NRDC has over 1.2 million members and online activists nationwide, more than 250,000 of whom live in California. NRDC uses law, science and the support of its members and activists to protect the planet's wildlife and wild places and to ensure a safe and healthy environment for all living things. NRDC has worked to protect wildlands and natural values on public lands and to promote pursuit of all cost effective energy efficiency measures and sustainable energy development for many years.

The Sierra Club is a national nonprofit organization of approximately 1.3 million members and supporters (approximately 250,000 of whom live in California) dedicated to exploring, enjoying, and protecting the wild places of the earth; to practicing and promoting the responsible use of the earth's ecosystems and resources; to educating and enlisting humanity to protect and restore the quality of the natural and human environment; and to using all lawful means to carry out these objectives. The Sierra Club's concerns encompass protecting our public lands, wildlife, air and water while at the same time rapidly increasing our use of renewable energy to reduce global warming.

As we transition toward a clean energy future, it is imperative for our future and the future of our wild places and wildlife that we strike a balance between addressing the near term impacts of large scale solar energy development with the long-term impacts of climate change on our biological diversity, fish and wildlife habitat and natural landscapes. To ensure that the proper balance is achieved, we need smart planning for renewable power that avoids and minimizes adverse impacts on wildlife and wild lands. These projects should be placed in the least harmful locations near existing transmission lines and on already disturbed lands.

We strongly support the emission reduction goals found in the Global Warming Solutions Act of 2006, AB 32, including the development of renewable energy in California. However, we urge that in seeking to meet our renewable energy portfolio standard in California, project proponents design their projects in the most sustainable manner possible. This is essential to ensure that project approval moves forward expeditiously and in a manner that does not sacrifice our fragile desert landscape and wildlife in the rush to meet our renewable energy goals.

Brief description of the proposed project and Federal action

EnXco applied to the BLM for a right of way to develop, operate and decommission a 150 MW photovoltaic solar power plant on approximately 1,280 acres of public land located six miles north of the town of Desert Center in the Chuckwalla Valley. Proposed project facilities include a substation, administration building, operations and maintenance facilities, transmission line, and temporary construction lay down areas. A 230-kilovolt (kV) generation interconnection transmission line would either be via the recently authorized First Solar Desert Sunlight 230-kV gen-tie (as a shared facility), or would be a separate line located on private and BLM-administered lands and would utilize a planned 230- to 500-kV substation (referred to as the Red Bluff Substation). The Red Bluff Substation would connect the project to the Southern California Edison regional transmission grid.

Since the proposed Desert Harvest Project site was not previously identified as suitable for electrical power generation in the CDCA Plan, BLM proposes to amend the CDCA Plan to allow for such use while concurrently considering whether or not to grant a right of way for the proposed project.

Status of enXco's right of way application

According to the BLM LR 2000 case file for this proposed project, enXco submitted a right of way application for the proposed project on 11/13/2007. On 6/16/2010 there was a pre-application meeting between BLM and enXco, an interagency meeting on the project application was held on 4/21/2011, and BLM has authorized the applicant's consultants to proceed with cultural resources and other site-surveys. The BLM received a request from the National Park Service at Joshua Tree National Park for Cooperating Agency status in the NEPA process for the proposed project on 6/27/2011. BLM approved the applicant's environmental consultant, Aspen Environmental Group, on 3/30/2011.

Our specific comments are as follows:

1. Introduction. Our organizations recognize the need to develop our nation's renewable energy resources and to do so rapidly in order to respond effectively to the challenge of climate change. Unique natural resources here in California are already being affected by climate change, including, for example, Pikas in the High Sierra Nevada and Joshua Trees in the Mojave Desert.

We also recognize that renewable energy development can help create jobs in communities that are eager for them, because of the current economic situation. For these and other related reasons, our organizations are working with regulators and project proponents to move properly sited renewable energy projects forward. That said, renewable energy development is not appropriate everywhere on the public lands and must be balanced against the equally urgent need to protect unique and sensitive resources of the CDCA. California is fortunate in having sufficient renewable resources, and especially solar energy, in many areas of the State, which provide opportunities for development of renewable energy generation and transmission in an environmentally and economically sound manner.

We strongly support renewable energy production and utilization, but we do not consider the construction of large-scale projects, and especially the very large solar energy projects proposed on relatively undisturbed public lands in the CDCA, to be the only way, or even the best way, to achieve our renewable energy goals. We strongly advocate that such large scale solar projects should be located on degraded or disturbed land such as abandoned agricultural fields, industrial sites, and near existing structures rather than on public lands containing intact natural biological communities, particularly those that include threatened, endangered or other at-risk species.

As we and our colleagues at sister organizations have repeatedly stated, the best way to develop the renewable resources of the CDCA is through comprehensive, pro-active planning involving federal, state and local governments to identify the most appropriate areas for such development -- *i.e.*, development zones -- and to guide development to those zones. *See, e.g.*, letter dated June 29, 2009 to Interior Secretary Salazar and California's Governor Schwarzenegger and signed by 11 organizations, including our own, attached to this letter.

Despite our fundamental belief in the critical importance of agency-guided siting of renewable energy development, rather than developer-initiated siting, we invested a great deal of time and effort into the “fast-track” projects last year, and will engage on individual projects, such as this one, in 2011.

2. BLM’s process in authorizing proposed project is flawed. Unfortunately, BLM continues to rely on developer-initiated siting rather than agency-guided siting for development of renewable energy projects, as noted above. The Federal Register Notice for the proposed project states “Pursuant to the BLM’s CDCA Plan, sites associated with power generation or transmission not identified in the CDCA Plan will be considered through the plan amendment process to determine the suitability of the site for renewable energy development. Since the proposed project site was not previously identified as suitable, authorization would require amendment of the CDCA Plan.”

Significant time and effort on the part of both the BLM and the project applicant has already been invested in this right of way application. BLM has had enXco’s right of way application for nearly four years and began actively processing it this year. The considerable time and expense on the part of enXco that has already been invested in this proposed project is documented in the LR 2000 case file log, and includes submission of a plan of development, cost recovery funds and hiring consultants to conduct the necessary site inventories and analyses in support of the NEPA process.

One important lesson that our organizations learned in the course of dealing with the “fast-track” projects in 2009-2010 is that the more time and money invested in an application by the BLM and the project proponent, the harder it is to make changes to a proposed project, even when those changes would significantly reduce natural and cultural resource conflicts. This lesson is a major reason why our groups pressed BLM and the Interior Department to adopt criteria for use in identifying which projects should be moved forward in the pending application queue. It was approximately six months ago that BLM adopted such criteria, *see* Instruction Memorandum No. 2011-061, “To: All Field Offices, From: Director, Subject: Solar and Wind Energy Applications – Pre-Application and Screening,” dated February 7, 2011, and the BLM should be using those criteria in selecting which project applications will be processed and analyzed, i.e., to identify the projects which would be located in areas with the fewest environmental concerns, thus increasing the likelihood they can ultimately be approved in a timely manner and with the least amount of controversy. We urge BLM to carefully apply the screening criteria to this proposed project to make sure any issues are effectively addressed in the DEIS.

3. National Environmental Policy Act (NEPA). Based on our recent experience in analyzing and commenting on many NEPA documents for fast-track renewable energy projects in the California Desert and Nevada, which were published by the BLM, we strongly recommend that BLM pay particular attention to developing accurate and factual sections of the NEPA document for the

proposed project for 1) purpose and need, 2) alternatives to the proposed action and 3) cumulative impacts.

- A. Purpose and need. The purpose and need statement should not simply indicate that BLM is responding to an applicant's right of way application, as it has done for previous renewable energy projects. The framing of the purpose and need should be broad enough to support alternatives that are meaningful.
- B. Alternatives to the proposed action. Alternatives are extremely important considering that public land-based renewable energy projects in the CDCA, individually and cumulatively, have resulted in the allocation of tens of thousands of acres of ecologically intact public lands to single-use, utility scale energy projects in just the past year. The range of alternatives must be carefully and methodically developed as a means to primarily avoid, and secondarily to minimize, adverse impacts to natural and cultural resources on our public lands, and especially in the CDCA because of statutory management requirements contained in the Federal Land Policy and Management Act. Alternatives to the proposed project, including alternative locations and reduced project sizes, need to be fully considered and analyzed. Furthermore, alternative locations must not be limited to public lands; previously disturbed private lands may provide opportunities for project development that do not entail significant adverse impacts to natural biological communities and sensitive biological resources that are often found on public lands. Consideration and analysis of alternative project locations is critical to ensuring that sites ultimately approved for the proposed project is in the best possible location, and one that avoids destruction of natural biological communities.

NEPA requires that BLM consider a range of alternatives, which is "the heart of the environmental impact statement." 40 C.F.R. § 1502.14. NEPA requires BLM to "rigorously explore and objectively evaluate" a range of alternatives to proposed federal actions. See *id.* §§ 1502.14(a) and 1508.25(c). "An agency must look at every reasonable alternative, with the range dictated by the nature and scope of the proposed action."¹ An agency violates NEPA by failing to "rigorously explore and objectively evaluate all reasonable alternatives" to the proposed action.² This evaluation extends to considering more environmentally protective alternatives and mitigation measures.³ NEPA requires that an actual "range" of alternatives is considered, so that they will "preclude agencies from defining the objectives of their actions in terms so unreasonably narrow that they can be accomplished by only one alternative (i.e. the applicant's proposed project)."⁴ This requirement prevents the EIS from becoming "a

¹ *Northwest Env'tl. Defense Center v. Bonneville Power Admin.*, 117 F.3d 1520, 1538 (9th Cir. 1997).

² *City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1310 (9th Cir. 1990) (quoting 40 C.F.R. § 1502.14).

³ See, e.g., *Kootenai Tribe of Idaho v. Veneman*, 313 F.3d 1094, 1122-1123 (9th Cir. 2002) (and cases cited therein).

⁴ *Colorado Environmental Coalition v. Dombeck*, 185 F.3d 1162, 1174 (10th Cir. 1999), citing *Simmons v.*

foreordained formality.”⁵ A range of alternatives to the proposed project must also be evaluated under Section 15126.6 of CEQA.

Many project applicants have signed Power Purchase Agreements with public utility companies for a certain amount of electrical power prior to siting decisions being made. This practice appears to have made some applicants unwilling to consider alternatives to their projects, including possible re-configurations of project footprints and associated changes in energy production. This perceived lack of flexibility cannot be allowed to preclude the BLM's consideration of a reasonable range of alternatives. The BLM must consider more alternatives than merely the project as proposed or no project. More specifically, the BLM should consider and analyze alternatives designed to avoid or significantly minimize identified resource conflicts and concerns, including alternative locations involving degraded private or federal lands having minimal biological resource values.

Since BLM intends to determine whether or not to amend the CDCA Plan to allow for the proposed project, we strongly recommend that the alternatives include provisions for conserving at-risk species, such as the Desert tortoise, which would allow BLM to address, in part, its obligation under Section 7(a)(1) of the Endangered Species Act. Such alternatives should include conservation actions recommended by the FWS in recent biological opinions for large-scale solar projects in this planning area. In the biological opinions for the Blythe, Palen, Desert Sunlight and Genesis solar projects, the FWS consistently included the following recommendation, “At a minimum, we recommend that BLM amend the California Desert Conservation Area Plan to prohibit additional renewable energy development ...within the upper bajadas (mapped as “dissected fans” on the NECO Map 3-4, Landforms) in the mountains of northeastern Riverside County.” BLM should determine whether or not the proposed project conforms to these conservation recommendations and, if not, develop an alternative to the proposed project that does not involve development in the dissected fan areas.

- C. Cumulative impacts. Cumulative impacts of the proposed project, and other existing and reasonably foreseeable land uses, on at-risk species and their habitats on a regional scale need to be carefully analyzed. Cumulative impacts need to be analyzed and considered in the context of various laws and regulations pertaining to management of public lands in the CDCA, including the Endangered Species Act, Federal Land Policy and Management Act, and BLM Manuals 6840 (Special Status Species Management), 6500 (Wildlife Habitat

United States Army Corps of Engineers, 120 F.3d 664, 669 (7th Cir. 1997).

⁵ City of New York v. Department of Transp., 715 F.2d 732, 743 (2nd Cir. 1983). *See also*, Davis v. Mineta, 302 F.3d 1104 (10th Cir. 2002).

Management) and 4180 (Public Land Health). Lastly, the effects of the proposed project on management policies contained in the CDCA Plan must be carefully identified and analyzed.

Regarding cumulative impacts, we strongly urge BLM to consider the ecological condition and trend of lands and biological resources within the western Chuckwalla Valley where the proposed project is located. It is essential such an analysis consider the adverse impacts from the recently approved 4,000 acre Desert Sunlight solar project, located immediately north of the proposed project, as well as the potential impacts from other pending applications in this region on both private and public lands. In a real sense, BLM needs to establish the carrying capacity for renewable energy in this area given all the pending applications.

Because the project is in an area being evaluated as a potential zone in the PEIS, the project must be considered in that context. NEPA's implementing regulations explain that agencies should consider connected, cumulative, and similar actions in the same impacts statement. "Connected actions" must "be considered together in a single EIS."⁶ Likewise, cumulative actions "which when viewed with other proposed actions have cumulatively significant impacts should be discussed in the same impact statement." 40 C.F.R. § 1508.25(a)(2). Similar, reasonably foreseeable actions also should be considered together in the same environmental review document when the actions "have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography," and the "best way to assess adequately [their] combined impacts [...] or reasonable alternatives" is to consider them together. 40 C.F.R. § 1508.25(a)(3).

4. Biological resources of special concern.

- A. Dry Desert Wash Woodlands. The proposed project is located in a portion of the Chuckwalla Valley that contains Dry Desert Wash Woodland, which is noted for its ecological significance in BLM's Northern and Eastern Colorado Desert Plan (NECO Plan). *See* NECO Plan, Map 3-3, Plant Communities. It appears that the proposed project falls within an area containing this plant community as shown on Map 3-3. The NECO Plan contains conservation provisions for Dry Desert Wash Woodlands and other rare habitats:

"The requirements for compensation at 3:1 replacement acres would discourage project placement in Desert Dry Wash Woodland and Desert Chenopod Scrub communities. Both of these are present in small amounts, but add greatly to overall plant diversity in the planning area. Similar compensation rates for disturbance of closed dunes and playas communities would likewise discourage projects on these very rare communities." (NECO Plan, Chapter 4, p. 83)

⁶ Thomas v. Peterson, 753 F.2d 754, 758 (9th Cir. 1985).

Clearly, the NECO Plan anticipated that projects that would entail destruction of Dry Desert Wash Woodlands would be discouraged due to the 3:1 habitat loss compensation requirement, but such was not the case with the proposed project. Avoidance of sensitive Desert Dry Wash Woodland habitat is critical to its long term conservation on public lands in this planning area. Due to the large size of the proposed project and its apparent overlap with Dry Desert Wash Woodland Habitat, it is essential that alternatives to the proposed project that completely avoid this habitat type are identified and analyzed in the NEPA process.

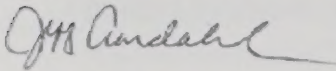
- B. Landforms: Dissected Fans. Dissected fans or upper bajadas adjacent to the McCoy Mountains contains the higher quality tortoise habitat in the region, and, as noted above, the FWS recommended that BLM prohibit further renewable energy development in this area, as well as in dissected fan habitats adjacent to the mountains in eastern Riverside County in general. The NEPA analysis should identify to what extent the proposed project would affect lands within this landform, and identify alternatives or impact avoidance measures necessary to avoid habitat loss in these areas.
- C. Foraging habitat for Golden eagles and other raptors. Based on the results of a 2010 golden eagle survey for several solar energy projects in eastern Riverside County, conducted by the Wildlife Research Institute⁷, evidence of current or past nesting by Golden eagle was noted in the region including the Coxcomb and Chuckwalla Mountains. Although the proposed project does not provide suitable raptor nesting habitat, the proposed project area is within the potential foraging range of this species. We recommend that an analysis of the effects of the proposed project, as well as other existing and proposed projects, on raptor foraging habitat within the area is included in the NEPA analysis.
- D. Desert tortoise and habitat connectivity. Our recent involvement with analyzing and commenting on Desert tortoise issues associated with the adjacent Desert Sunlight solar project indicate to us that these issues also need to be carefully analyzed for the proposed project. Of special concern is the potential impact of the proposed project on Desert tortoise connectivity habitat that extends through portions of Chuckwalla Valley including the Pinto Wash and more northerly suitable habitats. The NEPA analysis for the proposed project should address impacts, avoidance measures and other mitigation relative to the Desert tortoise and suitable connectivity habitats.
- E. Wildlife Habitat Management Area (WHMA). A portion of the proposed project occurs within the BLM-designated Palen-Ford WHMA, established as part of the regional conservation framework for public lands containing numerous species of sensitive plants

⁷ http://energy.ca.gov/sitingcases/genesis_solar/documents/applicant/2010-06-24_Golden_Eagle_Surveys_Surrounding_4_Proposed_Solar_Developments_TN-57324.PDF

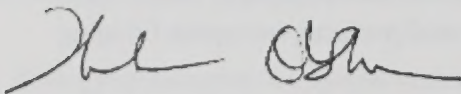
and animals. The Desert Sunlight solar project also overlapped this WHMA but to a much greater extent. We recommend careful analysis of the effects of the proposed project on this WHMA as well as cumulative impacts due to the numerous solar energy projects throughout the Chuckwalla Valley that are under consideration or have been approved. We recommend BLM develop alternatives to the proposed project to address this issue, and specifically one that avoids project siting within this WHMA.

This concludes the scoping comments of our organizations. Please contact us individually or as a group if you have questions or need clarification about any of the issues or recommendations we have included in this letter. Thank you for considering these scoping comments from our organizations.

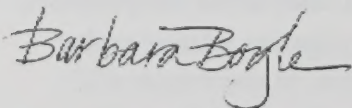
Sincerely,



Jeff Aardahl
California Representative
Defenders of Wildlife
46600 Old State Highway, Unit 13
Gualala, CA 95445



Helen O'Shea
Natural Resources Defense Council
111 Sutter Street, 20th Floor
San Francisco, CA 94104



Barbara Boyle
Senior Representative, Clean Energy Solutions
Sierra Club
801 K Street
Sacramento, CA 95814

Attachment: Recommended siting criteria for solar energy projects

ADAMS BROADWELL JOSEPH & CARDOZO

A PROFESSIONAL CORPORATION

ATTORNEYS AT LAW

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SOUTH SAN FRANCISCO, CA 94080-7037

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FAX: (650) 589-5062

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RACHAEL E. KOSS
ROBYN C. PURCHIA

OF COUNSEL
THOMAS R. ADAMS
ANN BROADWELL

October 7, 2011

VIA U.S. MAIL AND FACSIMILE

Lynnette Elser
Planning and Environmental Coordinator
Bureau of Land Management
California Desert District Office
22835 Calle San Juan de Los Lagos
Moreno Valley, CA 92553
Fax: (951) 697-5299

RECEIVED
BUREAU OF LAND MGMT.
11 OCT 11 PM 4:05
CALIF. DESERT DISTRICT
MORENO VALLEY, CA

Re: Request for Mailed Notice of NEPA Actions and Public Hearings -enXco Desert Harvest Solar Farm Project, Riverside County, and Possible Land Use Plan Amendment (CACA 49491)

Dear Ms. Elser:

We are writing on behalf of the California Unions for Reliable Energy to request mailed notice of any and all hearings, public meetings, environmental review documents, and other actions related to enXco's Desert Harvest Solar Farm Project and possible land use plan amendment (CACA 49491) ("Project") in Riverside County, as well as a copy of the environmental review document when it is made available for public review. This request is made pursuant to the National Environmental Policy Act ("NEPA") (40 C.F.R., §§ 1506.6(b)(1), 1501.4(e)(1) and 1501.7(a)(1)) and all other applicable laws and regulations.

Please send the above requested items to our South San Francisco office as follows:

Via U.S. Mail

Janet Laurain
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080

2625-001d

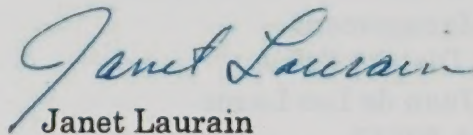
Lynnette Elser
Bureau of Land Management
October 7, 2011
Page 2

Via Email

jlaurain@adamsbroadwell.com

Please call me at (650) 589-1660 if you have any questions. Thank you for your assistance with this matter.

Sincerely,

A handwritten signature in blue ink that reads "Janet Laurain". The signature is fluid and cursive, with the first name "Janet" being more prominent than the last name "Laurain".

Janet Laurain
Environmental Paralegal

JML:cnh



Eagle Crest
Energy Company

3000 Ocean Park Boulevard Suite #10
Santa Monica, CA 90405

Tel: (310) 450-9090

Fax: (310) 450-9494

www.EagleCrestEnergy.com

Lynnette Elser
Planning and Environmental Coordinator
Bureau of Land Management
California Desert District Office
22835 Calle San Juan de Los Lagos
Moreno Valley, CA 92553

October 17, 2011

Dear Ms. Elser,

Eagle Crest Energy Company (ECE) appreciates the opportunity to submit comments on the Bureau of Land Management (BLM) Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Desert Harvest Solar Farm Project. We are concerned about potential land use conflicts between the proposed Desert Harvest project and the proposed Eagle Mountain Pumped Storage Project.

ECE holds a Preliminary Permit issued by the Federal Energy Regulatory Commission (FERC or Commission) most recently on August 13, 2008 to pursue development of the Eagle Mountain Project on public and private lands to the west of the Desert Harvest Project, with linear features extending through the Desert Harvest project area.¹ At the time of ECE's filing of the Preliminary Permit Application, ECE envisioned an interconnection transmission line traversing the Chuckwalla Valley from the Central Project Area to the southeast, parallel to the existing Southern California Edison transmission line. This interconnection transmission line was planned to connect to a proposed Colorado River substation near Blythe, California. The lands within the proposed project boundary, as displayed in the Preliminary Permit Application, are subject to a federal power reservation, as specified in Section 24 of the Federal Power Act.²

In June 2009, ECE applied to the FERC for a license to construct and operate the 1,300 MW Eagle Mountain Pumped Storage Project. In addition, ECE filed an application for a right-of-way (SF-299) for the Eagle Mountain Pumped Storage Project with the BLM in October 2008. In July 2009, BLM requested that ECE amend the SF-299 to reflect the project description in the FERC

¹ *Eagle Crest Energy Company*, 124 FERC ¶ 62,126 (2008).

² See 16 U.S.C. § 818

license application (letter attached). ECE responded to BLM's request in August 2009, with an amended SF-299 right-of-way application.

In December 2010, FERC published a Draft Environmental Impact Statement (DEIS) for the proposed Eagle Mountain Project.³ The DEIS identified a FERC Staff Recommended Alternative with a transmission route parallel to the SCE line interconnecting to the Red Bluff Substation as the environmentally preferred alternative.

ECE anticipates that, should FERC decide to issue a license for the project, the FERC Staff Recommended Alternative will become the licensed transmission route. In that event, the Eagle Mountain interconnection transmission route will cross through the southwestern parcel identified on the maps for the Desert Harvest project as being for the "transmission line." The lands included in the FERC Staff Recommended Alternative were included within the proposed project boundary in ECE's March 3, 2008 preliminary permit application, which thereby subjects those lands to a power project reservation under Section 24 of the Federal Power Act.⁴

The operation of Section 24 of the Federal Power Act precludes BLM from disposing of those lands designated for the Desert Harvest project transmission line that were withdrawn from disposal and reserved for power site use by the filing of ECE's preliminary permit application encompassing those lands. Specifically, Section 24 of the FPA provides:

Any lands of the United States included in any proposed project under the provisions of this Part shall from the date of the filing of application therefor be reserved from entry, location or other disposal under the laws of the United States until otherwise directed by the [FERC] or by Congress." See 16 U.S.C. § 818.

It should be noted that in an earlier preliminary permit proceeding for the Eagle Mountain Project, the Commission addressed this power site reservation issue in the case involving land exchanged under Section 206 of the Federal Land Management Policy Act (FLPMA). In that decision, the Commission clarified that the segregation of lands by BLM does not affect the operation of Section 24 of the FPA to withdraw lands with a federal power site reservation. See *Eagle Mountain Energy Company*, 61 FERC ¶ 61,066 (1993).

The Notice of Intent for the Desert Harvest Project notes that the BLM segregated the public lands located within the Desert Harvest Project's application area from appropriation under the public land and mining laws, but not the mineral leasing or material sales acts, for a period of 25 years for the purpose of protecting potential sites for future solar energy development pursuant to 43 CFR 2091.3-1(e) and 43 CFR 2804.25(e) (76 FR 38416, June 30, 2011). It is clear from the precedent stated above, that the lands set aside by BLM for segregation remain subject to a federal power reservation under the FPA for the Eagle Mountain Project.

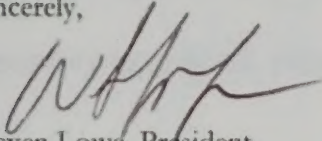
³ *Eagle Crest Energy Company*, Draft Environmental Impact Statement, FERC Docket No. 13123 (Dec. 23, 2010), <http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12518824>.

⁴ *Eagle Crest Energy Company*, 124 FERC ¶ 62,126 (2008).

We would also like to point out that the map entitled Regional Setting with Vicinity Projects, enXco – Desert Harvest Solar, CACA 049491, displays other proposed projects in Chuckwalla Valley area, but does not include the Eagle Mountain Pumped Storage Project.

We are available to answer any questions you may have about the Eagle Mountain Pumped Storage Project. We appreciate your attention to our concerns.

Sincerely,



Steven Lowe, President
Eagle Crest Energy Company

cc: John Kalish, Field Manager
Holly Roberts, Associate Field Manager
Peter Godfrey, Hydrologist



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Palm Springs-South Coast Field Office
1201 Bird Center Drive
Palm Springs, CA 92262-8001
(760) 833-7100 Fax (760) 833-7199



*Visit us on the Internet at
www.blm.gov/ca/palmsprings/*

JUL 14 2009

IN REPLY REFER TO:
2800
(CA-66.40)

Eagle Crest Energy Company
Attention: Steve Lowe
74-199 El Paseo Drive
One El Paseo West Building, Suite 204
Palm Desert, California 92260

Dear Mr. Lowe,

Eagle Crest Energy Company (ECE), has filed an application with the Palm Springs-South Coast Field Office, Bureau of Land Management for the construction, operation and maintenance of a FERC project, the Eagle Mountain Pumped Storage Project.

On June 22, 2009, the company also filed a Final License Application with the Federal Energy Regulatory Commission (FERC) for the project.

The project is proposed to be constructed, in part, on land which is subject to on-going litigation involving the Eagle Mountain Landfill Project. BLM will not accept an application for these lands until the case is settled.

Your SF-299 application does not include the correct legal description for the project and makes reference to the portions of the Draft License Application. The Draft License Application has been superseded by the Final License Application. Please file an amended SF-299 to reflect the location change as referenced in Volume 6 of the Final License Application.

According to Federal regulations contained in 43 CFR 2804.14, BLM is required to be reimbursed for the costs incurred in processing a right-of-way application. We have determined that the appropriate processing category for your application is Category 6. The nonrefundable processing fee for a Category 6 is all reasonable costs incurred in processing your application. Enclosed is a cost recovery agreement in which we have

estimated the cost of your application to be approximately \$106,685. An initial deposit of \$20,000 is required for processing your request. We will proceed with processing your application upon receipt of the amount.

Please sign the agreement and return with a check payable to DOI-BLM, at the above address. We will sign and retain a copy of the executed document.

Please be aware that you may not legally carry out any proposed activities on public lands managed by BLM until you have received an authorization from our office.

If you have any questions, please contact Mike Bennett at (760) 833-7139.

Sincerely,

John R. Kalish Acting For

John R. Kalish
Field Manager

Attachment – Cost Recovery Agreement

cc: Jeff Harvey

**COST REIMBURSEMENT AGREEMENT
BETWEEN
EAGLE CREST ENERGY COMPANY
AND
THE BUREAU OF LAND MANAGEMENT
PALM SPRINGS – SOUTH COAST FIELD OFFICE**

BLM Cost Recovery Project Number 5101-ER__

I. AUTHORITY

A. Section 304(b) and 504(g) of the Federal Land Policy and Management Act (FLPMA) [43 U.S.C. 1734(b) and 1764(g), as amended.

B. 43 CFR Subpart 2804

II. PURPOSE

This Cost Recovery Agreement ("Agreement") between Eagle Crest Energy Company ("Applicant"), and the Bureau of Land Management ("BLM"), establishes procedures to reimburse BLM for costs incurred in processing Right-of-Way Application Serial No. CACA 50946 ("Application") for a proposed right of way within the boundaries of the BLM Palm Springs – South Coast Field Office.

III. GENERAL PROVISIONS

A. BLM agrees to process the Application to the extent funding under this Agreement permits. Processing will include, but not be limited to: coordination, preparation, administration and approval of all necessary environmental analyses, including preparation of an Environmental Impact Statement (EIS); consultation with appropriate Federal, State, Tribal, and local officials; preparation of the administrative record; resolving any protests, appeals and/or litigation that might result from the proposal; preparation of all decisions and authorization resulting from those decision; monitoring the construction, and other necessary processing actions consistent with the final determinations.

B. BLM will advise Applicant of the nature and extent of all studies needed to comply with NEPA and other requirements, as discussed in Section A above, and BLM will have the opportunity to use studies prepared by Applicant's personnel and consultants wherever such studies meet BLM standards and the requirements of law.

C. BLM will administer this Agreement and process the Applications as to avoid unnecessary employment of personnel, limit expenditure of funds, and make every reasonable effort to process the application and make a decision concerning the Application in a timely and workmanlike manner.

D. The parties understand and agree that the purpose of this Agreement is limited to reimbursement of costs incurred by BLM and that it does not control any matter beyond the scope of this Agreement.

E. The designated points of contact/project manager with whom each party to this Agreement will communicate concerning any aspect of this agreement are as follows:

BLM	Applicant
Bureau of Land Management	Eagle Crest Energy Company
Mike Bennett, Assistant Field Manager	Steve Lowe, President
Palm Springs-South Coast Field Office	One El Paseo Building
1201 Bird Center Drive	74199 El Paseo, Suite 204
Palm Springs, CA 92262	Palm Desert, CA 92260

The Parties shall make its best efforts to utilize the same point of contact/project manager throughout the duration of the agreement; however, either party may designate a different point of contact/project manager by notifying the other party in writing of such change.

IV. REIMBURSABLE COSTS

A. In accordance with Section 304(b) of FLPMA and 43 CFR 2804.19, Applicant agrees to reimburse BLM for reasonable costs incurred by BLM for processing the Application, and should the Application be approved, for issuing a right-of-way grant and monitoring the construction, operation, maintenance and termination of authorized project facilities.

B. Further, in accordance with 43 CFR 2804.14(f), Applicant waives consideration of reasonable costs, as would be determined under 43 CFR 2804.20 and 2804.21, and agrees to pay all actual costs incurred by BLM related to this Application.

C. Actual costs incurred by BLM include direct and indirect costs, as defined in Exhibit 1. Exhibit 2, Financial Plan, is an estimate of direct and indirect costs expected to be incurred by BLM in processing the Application. This cost estimate may be amended, in writing, should actual costs exceed estimated costs.

V. PAYMENTS AND ACCOUNTING

A. Applicant's reimbursement of BLM's actual costs shall consist of an initial deposit of \$20,000, and additional period payments, to complete processing the Application, and, if approved, issue the grant, and monitor the construction, operation, and termination of the project.

B. The total reimbursement for costs incurred by BLM in processing the Application is estimated to be \$106,685. If BLM determines that additional funds are needed, BLM shall re-estimate such amounts and provide Applicant written notice of the determination and resultant estimated costs. If payments made by Applicant exceed actual costs incurred, BLM will promptly refund the excess or adjust the next billing to reflect the excess.

C. BLM shall monthly review case processing and costs incurred. When BLM determines there are insufficient funds remaining for the next period of planned work, it shall inform the Applicant of the work proposed to be done and request a further deposit. Deposits must be received prior to BLM incurring costs.

D. BLM will provide Applicant quarterly statements of BLM expenditures, within 30 days of the close of the quarter (March 31, June 30, September 30 and December 31).

E. Applicant shall have the right to conduct, at its own expense, reasonable audits of the books, records, and documents of BLM relating to the items on any particular accounting statement provided by BLM. Applicant shall have 30 days after receipt of the quarterly statement to raise objections to, or dispute, any particular entry or cost item.

F. BLM shall provide full justification of any disputed entry or cost item within 30 days of receipt of the objection or will delete the entry or cost item. If Applicant still objects to the entry or cost item, Applicant may submit an appeal to the State Director within 30 days of receipt of BLM's justification. The State Director's decision is the final administrative decision related to such entry or cost item.

G. In accordance with 43 CFR 2804.27, should BLM deny the Application, Applicant must reimburse BLM for all costs BLM incurred in processing the Application. If Applicant withdraws the Application, Applicant must reimburse BLM for processing costs incurred by BLM in closing its review of the Application.

VI. EFFECTIVE DATE

This Agreement shall be effective as of the latter date of its execution by both parties. Unless terminated earlier, this Agreement shall continue so long as Right-of-Way Case CACA 50946 is active.

VII. TERMINATION

Either party to this Agreement may terminate this Agreement with written notice to the other party. However, termination of this Agreement does not waive Applicant's responsibility for payment of BLM costs incurred as provided in Section VI of this Agreement.

VIII. OTHER PROVISIONS

Except as specifically provided in this Agreement, Applicant does not waive any administrative or jurisdictional rights it may otherwise have.

IX. SIGNATURES OF AGREEMENT
For Bureau of Land Management

CHell Acting for
Signature

John Kalish
Typed Name

Field Manager - Palm Springs
Typed Title

7/13/09
Date

For Eagle Crest Energy Company

Signature

Typed Name

Typed Title

Date

Exhibit 1

Description of Direct and Indirect Costs

Direct costs are those costs which can be specifically identified with the Application and which are incurred for the benefit of Applicant in that the costs would not have been incurred but for the Application and are appropriate in order for BLM to process the Application. Examples of direct costs include, but are not limited to, personnel costs in the form of wages paid to BLM personnel working on the Application, with allowances provided for fringe benefits and leave surcharge rate and any overtime associated with processing the Application; travel expenses; purchased services, if necessary, such as printing, automated data processing services and photographic reproduction; and any miscellaneous supplies and equipment of a specialized nature, the use of which is directly applicable to processing the Application.

Indirect costs are those which cannot be specifically identified with the Application. These indirect costs have been calculated at a fixed rate of 19.7% of direct costs. This percentage figure has been developed in accordance with Department of the Interior procedures and represents those administrative and program costs, excluding management overhead, which can be attributed to processing the Application. Indirect costs included a portion of the costs for capitalized and non-capitalized equipment; space rental; telephone services; postage; personnel transfer costs; budget and program development; administrative and clerical support; training, safety management; public information, inquiries and reports; cartography and basic series mapping; aviation management; telecommunication; maintenance of equipment and tools; and systems design and implementation.

Excluded from indirect costs are costs for managerial work; evaluation of field office activities; program coordination; technical program direction; environmental educational; interagency planning; studies and research; preparation of environmental documents relating to general program planning; law enforcement; and firefighting.

Information to be Supplied by Applicant

Technical drawings, Plan of Development, survey drawings and other information specifically related to the proposed project. A cultural survey of the proposed right of way area will be required.

Coordination with Other Agencies

BLM will coordinate this proposed project with at least the following other agencies:

- Federal Energy Regulatory Commission
- U.S. Fish and Wildlife Service
- State Historic Preservation Department
- Environmental Groups
- Applicable Habitat Conservation Program Managers
- Other Affected Parties

NATIONAL PARKS CONSERVATION ASSOCIATION

Protecting Parks for Future Generations

October 20, 2011

Lynette Elser, Planning and Environmental Coordinator
Bureau of Land Management
22835 Calle San Juan de Los Lagos
Moreno Valley, CA 92553

Dear Ms. Elser:

The National Parks Conservation Association (NPCA), a non-profit whose mission is to "Protect and enhance the national parks for present and future generations," would like to submit the following comments on EnXco's Desert Harvest Solar Farm. NPCA has almost 350,000 members nationwide and 48,000 members in the state of California. We work with communities, the media and elected officials to raise awareness about the value of protecting and supporting America's national parks. NPCA believes our nation must invest in a renewable energy future to become independent from foreign oil and reduce the worst impacts of climate change, but do so in such a way that does not jeopardize our national parks and other ecologically sensitive areas.

EnXco's proposed 150 Megawatt Desert Harvest Solar Farm is situated in the Chuckwalla Valley of California, north of Interstate 10 and directly to the south of the approved Desert Sunlight Solar Farm. The footprint of the proposed Desert Harvest Solar Farm is 1,280 acres and would include photovoltaic solar arrays, a substation, administration buildings, maintenance facilities and a transmission line. If approved, construction would commence in late 2013 and would take approximately 9-12 months to complete. The current footprint of the project is adjacent to the Chuckwalla Desert Wildlife Management area and is approximately 2 miles from the border of Joshua Tree National Park.

During the scoping period, the Bureau of Land Management is soliciting public comment on issues, concerns, potential impacts, alternatives, and mitigation measures that should be considered in the analysis of the proposed action. NPCA would like to comment on the following issues:

Pre-existing Policy on Renewable Energy Development

NPCA is concerned that this development does not comply with the February 24, 2011 Frost Poole Memo which states that renewable energy projects other than the Desert Sunlight Solar Farm will not be pursued in the Eagle Mountain area on Bureau of Land Management Land.

1) How does EnXco's Desert Harvest Solar Farm comply with the February 24, 2011 NPS/BLM Frost/Poole Memo?



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Joshua Tree, CA 92252

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Endangered Species

The Chuckwalla Desert Wildlife Management Area lies directly to the west of the proposed Desert Harvest Solar Farm footprint. The Chuckwalla DWMA was set aside as part of the Eastern Colorado Recovery Unit for the threatened Desert Tortoise.

The 2011 Revised Recovery Plan for the Mojave Population of Desert Tortoise by the U.S. Fish and Wildlife Service establishes a target of "No net loss" (p. 63) of current habitat within conservation areas. It goes on to say that "Habitat degradation or loss in some areas should be balanced with habitat acquisition or restoration of degraded habitat in other areas, as specified in the West Mojave Plan for example." (p.63)

The adjacent Desert Harvest Solar Farm could have adverse impact on the recovery unit in several ways. First, the development could degrade habitat and construction could introduce invasive species. Second, construction could mean the building of new access roads that could artificially inflate the population of predatory ravens, thus negatively affecting the population of desert tortoise. Finally, the project could impede the movement of Desert Tortoises between protected areas.

NPCA raises the following questions about impacts to the Chuckwalla Desert Wildlife Management Area to be addressed in the draft EIS.

- 1) How will the creation of surface roads to the project impact the Chuckwalla DWMA and how will these roads be mitigated?
- 2) What sort of predator control program will be implemented to control the potential increase in predatory ravens?
- 3) How will invasive weeds that are introduced to the project site and adjacent Chuckwalla DWMA be controlled as they will negatively impact critical desert tortoise habitat?
- 4) How does the Bureau of Land Management intend to monitor this project and the cumulative effects of other proposed projects on desert tortoise populations and is scientifically substantive data currently available to serve as a baseline?
- 5) How will this project and other proposed projects in the Chuckwalla Valley potentially impede wildlife corridors and limit the gene pool for animals like the threatened desert tortoise?
- 6) Will mitigation such as ecological restoration, construction of vehicle barriers and education programs designed to improve desert tortoise habitat and population viability be considered for this proposed project?
- 7) NPCA requests the Bureau of Land Management and EnXco to examine alternative locations for this project that would cause less negative impact to Joshua Tree NP and its dependent resources, preferably on disturbed lands.

Water Resources

The Chuckwalla Valley Groundwater Basin receives both surface and groundwater inflow from the Pinto Valley Groundwater Basin. The water enters into the Chuckwalla Valley Groundwater Basin through a gap



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in the bedrock. A portion of Joshua Tree National Park (JTNP) overlies the Pinto Valley Groundwater Basin.

Although photovoltaic arrays need a great deal less water during project operations, water use can still be substantial during construction when water is used as a palliative to minimize dust, for construction materials and for teams of workers. NPCA would like to see the following questions addressed in the draft EIS related to water use for this project:

- 1) How will water use for this project and the cumulative water use for the proposed Eagle Crest Pumped Storage Project, Desert Sunlight Solar Farm, Chuckwalla Solar Project, Palen Solar Project and Riverside East Solar Energy Zone:
 - A) Impact groundwater beneath the Chuckwalla Valley;
 - B) Affect groundwater in the Pinto Basin beneath Joshua Tree National Park;
 - C) Impact surface water like seeps and springs throughout this region; and
 - D) Affect riparian Vegetation

NPCA would also like to see the following considerations addressed in the draft EIS:

-A meaningful, scientifically based discussion about desert groundwater recharge rates that consider climate change predictions for our area, especially increasing variability in precipitation for the California desert and overall diminished precipitation.

- A meaningful, scientifically based discussion about the amount of available groundwater. Assumptions in the EIS about the number of acre feet in the groundwater should the water already allocated for habitation, agriculture and industry in the Chuckwalla Valley and surrounding area. Studies should include an analysis from the United States Geological Survey studies, other government agency or independent university analysis if possible.

Air Quality

Joshua Tree National Park is designated as a Class I Airshed, which means that it receives the highest level of protection under the Clean Air Act. However, the park consistently exceeds the 120 parts per billion ozone concentration level set by the Environmental Protection Agency for human health and ground-level ozone concentrations are among the highest recorded in the National Park System. High levels of ground-level ozone have the potential to human health and plant life.

Poor air quality frequently obscures the park's scenic vistas. During certain times of the year, visitors at the mile-high Key's View observation area can barely see the tip of 10,000 foot high Mount San Jacinto, a mere 50 miles away. In fact, the natural visual range from high points in Joshua Tree should be approximately 120 miles, but on many days air pollution limits it to 35 miles and less. Finally, atmospheric nitrogen and sulfur deposition in Joshua Tree National Park due to air pollution is well above naturally occurring levels. Atmospheric nitrogen deposition fuels the growth of invasive species in Joshua Tree and has altered the park's fire regime.

The Desert Harvest Solar Farm has the potential to harness a clean, renewable source of energy, but at the same time, construction and the removal of native vegetation could adversely impact air quality in the



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Coachella Valley and Joshua Tree National Park. NPCA raises the following questions to be examined in the upcoming draft EIS.

- 1) How will the cumulative effects of the removal of native vegetation and the disturbance of soils from projects like the Desert Sunlight Solar Farm, the proposed Desert Harvest Solar Farm, Ridgeline Energy Project, Chuckwalla Solar Project, Palen Solar Project and the Riverside East SEZ impact air quality in the Chuckwalla Valley, surrounding wilderness, adjacent Chuckwalla Desert Wildlife Management Area and Joshua Tree National Park?
- 2) How will the cumulative and project-specific effects of the operation of vehicles and motorized equipment during construction for this project and the aforementioned projects affect nitrogen deposition and ground level ozone in the Chuckwalla Valley, surrounding wilderness, adjacent Chuckwalla Desert Wildlife Management Area and Joshua Tree National Park?
- 3) How will the cumulative air quality impacts of the aforementioned projects be adequately monitored before, during and after construction so that the National Park Service and other land management agencies have accurate data on the cumulative and individual impacts of the aforementioned projects?
- 4) What steps will be taken to mitigate and improve air quality from the impacts of the aforementioned projects? What steps will be taken during construction to protect the scenic viewsheds and visibility from Joshua Tree National Park?
- 5) What steps will be taken to mitigate and minimize light pollution and fugitive dust that could harm Joshua Tree National Park's night sky resources?
- 6) What design steps will be undertaken to minimize this project's form, line and color from mountainous viewing points within wilderness or Joshua Tree National Park?

NPCA would like to thank the Bureau of Land Management for the opportunity to submit these scoping comments for EnXco's proposed Desert Harvest Solar Farm in eastern Riverside County. We welcome the opportunity to review the draft Environmental Impact Statement and see how these questions and issues are addressed.

Sincerely,

Seth Shteir, California Desert Field Representative
National Parks Conservation Association
61325 Twentynine Palms Hwy., Suite B
Joshua Tree, CA 92252
sshteir@npca.org
760-332-9776



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From: Susan Fleming [<mailto:mrsfungus53@gmail.com>]
Sent: Saturday, October 15, 2011 2:52 PM
To: BLM_CA_Desert_Harvest
Subject: Solar

I am a concerned citizen of Lake Tamarisk Desert Resort in Desert Center California. The proposal for additional Solar Sites in our area is disturbing. First Solar has already invaded our area. There is no room for more at this time nor any desire for more in the future. We are a very remote, quiet, undisturbed, unpopulated area. There is a population of approximately 300 during the winter months when the 'Snowbirds' are here. The population of the 'Snowbirds' alone is approximately 150 plus. We are here by choice because of the beautiful quiet desert. We are here for the Golf Course, the Bike Riding, Walking, and ATVing. With the Solar Farms taking over our beautiful desert and all of the construction trucks, people, ect. we are no long a quiet beautiful area. The quiet on the golf course and outside on our patios has been disturbed by many extra vehicles, large and small. This is only the first.

There has been no study on the affect of Solar and tranmission lines and Humans. Many studies have been done on plants, animals, ect., but not on humans. These Solar Plants are very close to our community. If nothing else, there should be a buffer zone between our community and the Solar.

Our night skies are untouched by ,,,,,,, lights. Will the night lights at the Solar plants disturb our night skies???

Will the Transmission lines, block our views and endanger our health???

More studies need to be done on where this is happening. There is no housing for even a small portion of any employees much less many. Our roads cannot handle the amount of trips even of Shuttle Busses that will go down our roads. There are no shoulders on our roads, so the 'humans' will have to give up riding their bikes and walking for their health.

Building these Solar Farms near a Community really needs further research. We ask questions that no one has answers for. We just don't want our beautiful, quiet area ruined by too many Solar Farms with no consideration to the Community or people. More research and information needs to be provided before constructing more Solar.

Sincerely,
Susan Fleming
Lake Tamarisk Desert Resort
mrsfungus53@gmail.com
425-346-6669

From: wdgreen4 <wdgreen4@aol.com>

To: LEIser <LEIser@blm.gov>

Subject: BLM,desert harvest solar project EIS

Date: Thu, Oct 13, 2011 3:09 pm

MR.& MRS. Walter D. Green

Phone: 760-227-3215

Address: PO Box 306

Desert Center, Ca. 92239

We are for solar projects, but! They are being pushed through without any consideration for local residents or the unique Flora and Fauna in this area. Ancient Ironwood forests are suppose to be protected. The BLM needs to ask the local population about were the desert lilies actually bloom, more bloom out of the Desert Lily Preserve than in it. Native American petroglyphs are found here and arrow heads ect. can be found in this valley. You are bulldozing over areas you know very little about. There seems to be no proof that even the water supply has been considered. There are reports that the water being used is not renewable. Water is drafted from from the aqueduct, All American cannel, for building projects in Coachella Valley. Why aren't they using the aqueduct here? With over 8 solar projects being approved for this small valley, the BLM seems to be rushing to accommodate solar energy at all cost. Even though it has yet to be proven as a cost effective source of energy or even environmentally sound.

No current research has been done on this valley, meetings are unadvertised in this area and people who should have answers seem to be uninformed and have no answers. Few people know what is going on. BLM seems to think telling someone 50 to 100 miles away is adequate. IT isn't! What should be addressed in your environmental document.— What will be left of this valley for local residents, if you ruin the water supply and kill off the unique desert vegetation?

RECEIVED
BUREAU OF LAND MGMT.
11 OCT 18 PM 2:13
CALIF. DESERT DISTRICT
MORENO VALLEY, CA

REPORTER'S TRANSCRIPTION OF COMMENTS RE:

BUREAU OF LAND MANAGEMENT

PUBLIC SCOPING MEETING

DESERT HARVEST SOLAR PROJECT EIS

OCTOBER 2011

DATE: Monday, October 3, 2011

TIME: 1:00 P.M. to 2:00 P.M.

LOCATION: University of Riverside
Palm Desert Graduate Center
75080 Frank Sinatra Drive
Palm Desert, California

REPORTED BY: Rhonda K. Goodman
CSR No. 8857

REFERENCE NO: 28719A

1 APPEARANCES:

2 IAN BLACK, enXco

3 LYNNETTE ELSER, Bureau of Land Management

4 MARISA MITCHELL, Aspen Environment Group

5 AUBREY MESCHER, Aspen Environment Group

6 ALEX McINTURFF, Aspen Environment Group

7
8 THE PUBLIC:

9 REBECCA FORBES, Caltrans

10 ELIZABETH MEYERHUFF, Eagle Crest Energy

11 PATRICIA PINON, La Cuna de Aztlan Sacred Sites

12 OLLIE BEYAL, Observer

13 PHILIP LUONG, Lakeview Ranch

14 ULRICH J. SAUERBREY, US LandLink

15 KMIR TV
16
17
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24
25

1 PALM DESERT, CALIFORNIA

2 MONDAY, OCTOBER 3, 2011

3 1:49 P.M.

4 (Presentation given by Ms. Elser
5 and Mr. Black.)

6 * * *

7 MS. ELSER: We do have a court reporter here who
8 will be recording your comments. We are doing that
9 because we want to know exactly what you say and use that
10 information in writing our documents. When you come up,
11 state your name clearly so she will know who is talking
12 for the record.

13 MS. PINON: I prefer not to be on camera. Can I
14 request that? Thanks.

15 KMIR: (Turned camera off.)

16 MS. PINON: My name is Patricia Pinon. I am the
17 Chairperson of the La Cuna de Aztlan Sacred Sites
18 Protection Circle. We are advocates of our Cultural
19 Resources located along the lower Colorado River Basin,
20 and we are also Environmental Justice Advocates.

21 For the past 56 years, we have been studying "The
22 Aztec Place of Origin" here in the surrounding Palo
23 Verde, Parker, and lower Colorado River Valleys.

24 In 1975 the Riverside County Tribes organized
25 opposition against the Sun Desert Nuclear Power Plant

1 proposed to be built at the base of the Sacred Mule
2 Mountains. Calli, in the Aztec language, and Hamoc-Avi
3 in Mohave, and I'll give you these names. After four
4 years of intense struggle, we were able to stop the
5 project in 1979. This gave us the reputation of being
6 the first indigenous group in the United States to stop a
7 nuclear power plant from being built.

8 In 1992, the Fort Mojave and the Colorado River
9 Tribes organized the Colorado River Anti-Ward Valley
10 Coordinating Committee; and after eight years, we stopped
11 the proposed Ward Valley Nuclear Toxic Dump located
12 between the Sacred Turtle the and Avi-Kawme "Spirit"
13 Mountains located 15 miles northwest of Laughlin, Nevada.

14 In the year 2000, we organized La Cuna de Aztlan
15 Sacred Sites Protection Circle. Said Circle is comprised
16 of 15 Native American individuals dedicated to physically
17 protecting the Sacred Sites. On February 15, 2008, La
18 Cuna de Aztlan Sacred Sites Protection Circle signed a
19 Memorandum of Understanding together with the Southern
20 Low Desert Resources Conservation and Development Council
21 with the Bureau of Land Management. The MOU specifies
22 the formation of a partnership for protection of cultural
23 resources, and to protect the Blythe Giant Intaglios,
24 other geoglyphs, and several hundred sacred sites that
25 are located along the Colorado River from Needles,

1 California, to Yuma, Arizona.

2 La Cuna de Aztlan Sacred Sites Protection Circle
3 is totally against this Solar Energy Project. The
4 California Energy Commission Cultural Resources Docket
5 No. 09-AFC-8, recorded on June 22nd, 2010, the Summary of
6 Conclusions, Testimony of Elizabeth A. Bagwell, Ph.D.,
7 and Beverly E. Bastian, reveals the following, and I
8 quote, "Staff finds that the GSEP construction impacts,
9 when combined with impacts from past, present,
10 and reasonably foreseeable projects, contribute
11 in a small but significant way to the
12 cumulatively considerable adverse impacts for
13 cultural resources at both the local I-10
14 Corridor and regional levels.

15 "This analysis estimates that more than 800
16 sites within the I-10 Corridor, and 17,000 sites
17 within the Southern California Desert Region,
18 will potentially be destroyed. Mitigation can
19 reduce the impact of this destruction, but not to
20 a less than significant level."

21 The proposed project is in direct violation of
22 State, Federal, County, and United Nations laws that
23 protect Native American Sacred Sites, including the
24 following: United Nations Declaration on the Right of
25 Indigenous People, Resolution of 2007, which was adopted

1 by the General Assembly during the 107th plenary meeting
2 and signed by President Barack Obama on December 15,
3 2010. This violates the Native American Sacred Places,
4 dated March 6, 2003, SB-18; Native American Sacred Lands
5 Act, dated June 11, 2003, HR-2419; the Sacred Land
6 Protection Act, July 18th, 2002, HR-5155; the Native
7 American Sacred Sites Protection Act, February 22, 2002.
8 That was Senate Bill 1828; Accommodations of Sacred Sites
9 and Federal Land, signed by President Bill Clinton on May
10 24, 1996, Executive Order 13007; Native American Graves
11 Protection and Recreation Act of 1990; Archeological
12 Resources Protection Act of 1979; American Indian
13 Religious Freedom Act, August 11, 1978; the Civil Rights
14 Act of 1968; and Antiquities Act of 1906.

15 The Solar Power Project will destroy thousands of
16 pristine desert environment and will destroy thousands of
17 sacred turtles, horny toads, as well as other animals
18 that live in the area. The turtle and the horny toad are
19 two of the most venerated sacred animals among all the
20 indigenous nations, especially along the Colorado River.
21 The turtle is the nahualli (animal representation) of
22 Mother Earth, and its image is seen in the center of the
23 Aztec Calendar.

24 The Southern California blackout of September 10,
25 2011, proves that we should build these solar power

1 projects in urban areas. This is where the majority of
2 the energy is needed, because of the risk of another
3 blackout. As we've now have experienced, one man's
4 mistake paralyzed six million people's lives; and as we
5 know, the long distant transmission lines can easily be
6 sabotaged.

7 According to The Press Enterprise article on
8 September 11, 2011, "The nation's transmission lines
9 remain all too vulnerable to cascading failures."

10 La Cuna de Aztlan Sacred Sites Protection Circle
11 is available to give tours to archeologists and
12 anthropologists interested in visiting the sites
13 described in this article and anybody that would like to
14 visit please give us a call if you are interested in
15 seeing ancient sacred sites.

16 Thank you.

17 MS. ELSER: Thank you for your comments.

18 Does anybody else have a speaker card and wish to
19 make comments?

20 Okay. If you do have comments that you think of
21 later, please send them to us in writing.

22 (Ms. Elser gave closing comments.)

23 (The Public Scoping Meeting held in Palm Desert
24 was concluded at 2:00 p.m.)

25 ///

1 CERTIFICATE OF DEPOSITION REPORTER

2
3 I, Rhonda K. Goodman, Certified Shorthand
4 Reporter in and for the State of California, Certificate
5 No. 8857, do hereby certify:

6 That the foregoing meeting was taken before me
7 at the time and place therein set forth,

8 That the Public Scoping Meeting was recorded
9 stenographically by me and thereafter transcribed through
10 computer-aided transcription, said transcript being a
11 true copy of my shorthand notes thereof and a true record
12 of the statements given.

13 I do further certify that I am a disinterested
14 person and am in no way interested in the outcome of this
15 action, nor connected with or related to any of the
16 parties herein.

17 IN WITNESS WHEREOF, I have subscribed my name
18 this date: _____.

19
20
21 _____
22 RHONDA K. GOODMAN
23 CSR NO. 8857
24
25

TRANSCRIPTION OF COMMENTS RE:

BUREAU OF LAND MANAGEMENT

PUBLIC SCOPING MEETING

DESERT HARVEST SOLAR PROJECT EIS

OCTOBER 2011

DATE: Monday, October 3, 2011

TIME: 6:00 P.M. to 8:00 P.M.

LOCATION: LAKE TAMARISK CLUBHOUSE
26251 Parkview Drive
Desert Center, California

REPORTED BY: Rhonda K. Goodman
CSR No. 8857

REFERENCE NO: 28719B

1 APPEARANCES:

2 IAN BLACK, enXco

3 LYNNETTE ELSER, Bureau of Land Management

4 MARISA MITCHELL, Aspen Environment Group

5 AUBREY MESCHER, Aspen Environment Group

6 ALEX McINTURFF, Aspen Environment Group

7 LEVY COX, enXco

8
9 THE PUBLIC:

10 TAMMIE DYE, Observer

11 BRYON CASTOR, Desert Center Chamber of Commerce

12 DAWN RETTAGLIATA, Observer

13 SUE FLEMING, Lake Tamarisk RV Park BOD

14 GARY FLEMING, Lake Tamarisk RV Park BOD

15 K. KAVGANN, Desert Sun

16 MARYEL GREEN, Observer

17 WALTER GREEN, Observer

18 HAROLD FOSTER, Resident

19 LARRY CHARPIED, Farmer

20 RENEE CASTER, Desert Center Chamber of Commerce

21 PATTY BELL, Resident

22 JOHNNY COON, Resident

23 PHILLIP SMITH, CRIT

24 CHELSEA MINOR, Observer

25 SKYLER FRAZIER, Observer

1 THE PUBLIC (continued):

3 RACHEL WOODARD, Observer

4 DONNA CHARPIED, Desert Protection Society

5 G. ALVAREZ, Observer

6 STEVE H. JONES, Observer

7 LLOYD GUNN, Observer

8 RONALD VAN FLEET, Fort Mojave

9 VICKIE JONES, Observer

10 JULIE SMILEY, Observer

11 TIMOTHY W. ANDERSON, Desert Center Grape Farm

12 MICKEY CASTOR, Lake Tamarisk Resident

13 GEORGE DONALDSON, Chamber of Commerce

14 ORIN CASTOR, Observer

15 GLENN CASTOR, Observer

16 ALFREDO A. FIGUEROA, La Cuna de Aztlan

17
18 ///

19 ///

20 ///

1 DESERT CENTER, CALIFORNIA

2 MONDAY, OCTOBER 3, 2011

3 6:00 P.M.

4 (Presentation given by Ms. Elser
5 and Mr. Black.)

6 (Interruption of the presentation.)

7 * * *

8
9 MR. SMITH (I think): (No mic) Have you contacted
10 the tribes along the river cultural ties to this ...

11 MR. BLACK: Yes, we reached out two months ago

12 MALE: What was that question?

13 MR. BLACK: Sorry. The question is whether or
14 not we reached out to area tribes to get their input.
15 There's 26 tribes identified. We reached out to 16 of
16 those that had registered archeologists to hold a
17 meeting, pre-scoping, to discuss what we have done in the
18 field.

19 We did have a meeting. One of the archeologists
20 was able to make it. And I believe the cultural report
21 will be submitted and approved by the BLM sometime this
22 month.

23 But, yeah, we have reached out. We tried several
24 times ...

25 MALE: (No mic). I heard there will be less

1 impact assigning it away from commercial areas, going to
2 wilderness and less impact in the wilderness.

3 MR. BLACK: No. I wasn't saying less impact.

4 The question's whether it would go through
5 commercial property or not, and that is to avoid
6 commercial property. If it was a new Gen-Tie, it would
7 be the same as any Gen-Tie.

8 THE REPORTER: I can't hear clearly without a
9 microphone.

10 MR. BLACK: Out of respect for the court
11 reporter, we should hold the comments. She cannot take
12 our comments without a mic.

13 MR. VAN FLEET: Ron Van Fleet, Fort Mojave,
14 Tribe Representative. My question was: Did the solar
15 company notify the tribes, you know; and did you get a
16 response? I heard that you said that one archeologist
17 responded.

18 We're overwhelmed by the projects in Arizona
19 that are coming out. My tribe, Melinda Ortego, she's the
20 Cultural Resource Director of the Fort Mojave Indian
21 Tribe. And wind projects, solar projects, it's -- her
22 staff is overwhelmed by just those projects. And I heard
23 about this from Fred Figueroa just this Friday. He
24 called me up, and I have got the literature from BLM. I
25 didn't see your project in BLM's reports that I got. And

1 I still have some mail that I still haven't opened up to
2 the projects. And I'm overwhelmed, you know.

3 So I know that back in 1992 we did a Spiritual
4 Run from Eagle Mountain Road here. We do a Spiritual Run
5 in our tribe for the land, the animals, and the people.
6 There are millions of ants, the reserves, the turtle
7 reserves; but, you know, we did it for the whole area and
8 for all people, and the contamination that was coming in.

9 I thank you for your response.

10 MR. BLACK: Sure. Yeah. I think BLM does have
11 records that we sent -- we sent written letters to
12 representatives of 12 or 14 of the registered tribes. We
13 followed up by both e-mail and phone over the course of a
14 six-week period. Tried to set up multiple dates to
15 address issues and direct questions to the BLM cultural
16 liaison and to give them an update on where our cultural
17 surveys stood.

18 Our cultural surveys have been completed.
19 Reports written. We have not seen the results, but it
20 will be in BLM's this month.

21 MS. ELSEER: In addition, BLM will be doing
22 formal consultation with all of the tribes. The
23 consultation letters were in draft two weeks ago. I have
24 not been in the office for two weeks, because I have been
25 in public meetings for other projects. So I can't say if

1 they were mailed. If they weren't mailed, they will be
2 mailed either this week or next week. But we will have
3 formal consultation with all tribes that are interested
4 and wish to have it.

5 MR. GUNN: (No mic. Didn't hear.)

6 MS. ELSER: This is Lloyd Gunn, BLM's Advisory
7 Council. He meets with BLM and other members of advisory
8 council, gives guidance on projects and just things that
9 BLM is involved in ...

10 MR. GUNN: Actually, I am not an authority on
11 that, but I represent Wildlife Council. One of my
12 questions was: What mitigation are you going to give
13 people in the community if you go through with this
14 project? Like the solar projects use a great deal of
15 water. Are you going to cut down many trees? ... trees.
16 The temperature is 15 degrees cooler underneath ...
17 trees. Plus the solar is going to generate more heat.
18 And also, like you mentioned, your company is new at
19 solar projects. So is your goal really just get the
20 Government's approval, and then sell it to someone else?

21 MR. BLACK: I'll answer that last question
22 first. No. We have no intention to sell. We are not a
23 paneling manufacturer. We are not looking to deploy a
24 certain panel. We are technology neutral. We're an
25 energy developer and owner. We have no intention to sell

1 this project at this point.

2 With regards to the biological impacts, Marisa
3 is going to be studying those through the EIS process.

4 ... we identified the fourth route because we weren't
5 sure if the other three routes were going to work.

6 MS. ELSER: Ian, can you also answer: Are you
7 considering anything to help the local community?

8 MR. BLACK: Absolutely. Before we even started
9 doing work on site, I spent seven months, counting every
10 two weeks, in Coachella Valley ... participate in the
11 Coachella Valley Partnership. There are a number of
12 different organizations in the Coachella Valley ... just
13 coming and listening to a number of proposals in regards
14 to what economic value can the company provide. Work
15 force development has been a focus. A number of
16 communities -- Blythe has been very vocal about the
17 economic impact they have been feeling the last ten
18 years, and Applicant's been very happy in trying to help
19 the community in whichever --

20 MS. CHARPIED: (No mic) The community you are
21 talking about is 50 miles away from this community.

22 MR. BLACK: Sure. And that's why I am listening
23 to you tonight.

24 MS. CHARPIED: (No mic.)

25 MS. MITCHELL: Can you state your name, please.

1 MS. CHARPIED: Donna Charpied, C-h-a-r-p-i-e-d.

2 MR. BLACK: It's a valid question.

3 MS. CHARPIED: Because I am really tired of
4 seeing in the newspaper the Coachella Valley is going to
5 get so much from all these solar projects, but they are
6 not going to feel the brunt of this. They're not going
7 to have the Joshua Tree National Park destroyed that we
8 look at every day and all of those things. This is the
9 community that's impacted. You should have been spending
10 seven months in this community talking with us.

11 Besides that I wanted to ask you another
12 question. You said that you are not going to use Cagney
13 (sp) and Eurite (sp), which I am very happy to hear,
14 because I'll be breathing that the rest of my life, next
15 to Desert Sunlight ... I read it's the best, 11.7 11.7.
16 What are your ... efficiencies? Give me a number.

17 MR. BLACK: We haven't selected the panel yet.

18 MS. CHARPIED: It's pretty hard to give comments
19 if we don't even know what your project is going to do.

20 MR. BLACK: Well, we're giving a range of
21 materials, as well, in our application; but the project
22 won't go commercial for another two years.

23 MS. CHARPIED: Maybe --

24 MR. CHARPIED: Larry Charpied.

25 If there's 8 to 12 percent loss in

1 transmissions, and you're only 17 to 18 percent, are you
2 really going to make any electricity? That's my
3 question.

4 MR. BLACK: It's a valid question. We model
5 those losses in everything that we do. The process of
6 getting a project contractor utility requires you to
7 price it competitively versus other companies in the
8 market, but also has to be financed by a bank or by your
9 own company.

10 Yes, we do take into account losses. We do take
11 into account efficiency panels. And that's what we
12 ultimately will arrive at in terms of product.

13 MR. CHARPIED: How much is going to get to the
14 consumer? That's my question.

15 MR. BLACK: I think it will depend on the time
16 of day, and ultimately the panel we use, and ultimately
17 the size of the Gen-Tie that we're able to get together.

18 MR. CHARPIED: So we don't know any of that.
19 We're just doing that kind of like an exercise, because
20 we don't really know what the parameters are right now?

21 MR. BLACK: I think it's all dynamics. Depends
22 on the heat that is being around those lines. So right
23 now, the losses would be significantly lower, then, say,
24 middle of August.

25 MR. CHARPIED: And so would energy production be

1 less than in the middle of the summer? How much is what
2 I am saying.

3 MR. BLACK: It varies.

4 MS. CASTER: My name is Renee Caster.

5 I have a couple of comments. One thing, there's
6 been quite a few solar projects go to Blythe or
7 Coachella, instead of coming here; even though they are
8 going in our front yard. I appreciate that much
9 consideration.

10 One of the impact statements that we were
11 talking about in the community, the reason why we're
12 asking, is in the short amount of time that First Solar
13 had started their project, we had maxed out our housing,
14 maxed out what few utilities we had available to them.
15 Everyone is trying to help and trying to accommodate and
16 trying to make this a positive thing for the community.
17 Unfortunately, since we don't have a city government of
18 any shape or form, we have no funding to improve our
19 infrastructure, to make it easier for us and for them.

20 And when you guys come in, that's going to
21 double the capacity for something we don't have an
22 infrastructure for. And we are looking for a way to
23 build an infrastructure that has never been done before.
24 And we have been turned down by the County. So we have
25 no way to get money from the County to improve our

1 infrastructure that doesn't exist. Yet we are being
2 demanded by the solar companies to have things that we
3 just don't have. And you're the second of eight projects
4 that we know of going in. And that's why people are
5 having a concern.

6 And the next meeting you come to, you are
7 learning from this meeting, we become very educated about
8 solar here, because of the stressful issue; and you
9 really want to bring your techs next time. We'll ask the
10 technical questions. We really want to know all the
11 details. It's stressing or community. We're trying to
12 be helpful, and we're trying to understand; but there are
13 issues.

14 And my second issue: Your project is going
15 right next to an Ironwood Forest. And Ironwood trees are
16 a protected plant. What are you going to do with those
17 Ironwood trees if they overlap on your project site?

18 MR. BLACK: We're in the process right now of
19 doing veg mapping of the entire site to identify whether
20 there are any sensitive species on site. Our experience
21 in the past suggests that you have to build around those.
22 You have to fence those off. We found that a number of
23 projects, you just haven't been able to, not only because
24 of the Ironwood, but because of the area in which they
25 lie, tend to fence those off. And we're going to find

1 out in a couple months what that looks like.

2 To a couple earlier points, this project is
3 one-fourth the size of the Desert Sunlight Project. We
4 are absolutely aware of the impacts that are going to be
5 beyond this community. One thing, in addition to these
6 meetings, is I have been meeting regularly with the Board
7 of Supervisors and Riverside County trying to understand
8 what it is they are -- what impacts they are feeling,
9 what they are providing to the community, and can we try
10 and find what gaps to fill in.

11 I don't have any answers. I would echo your
12 concerns in that I am not entirely sure what their goals
13 and focus are; but I'm meeting with them every week, once
14 or twice a week, trying to get a better answer so that we
15 can find out where we can fill in the gaps.

16 MS. ELSER: And when we have the draft
17 environmental impact statements, we will come back to the
18 community for comments on that, the vegetation management
19 plan. On some documents in the vegetation management, we
20 have allowed the local community to remove cactus; or
21 sometimes nursery wholesalers, they get a permit from BLM
22 to remove them before the project begins. So the younger
23 ones that are able to be relocated can be relocated, and
24 sometimes they are lost. But there will be a Vegetation
25 Management Plan in that Draft EIS. So please read it.

1 And if you have comments that you would like us to
2 consider and change that at the draft, then we will be
3 happy to consider those comments.

4 Right now, we're at the very beginning stage of
5 the project. We don't know everything. We don't have a
6 lot of things completely thought out. We don't have
7 complete surveys yet. We wanted to include the public at
8 the beginning steps so that we don't get so far along in
9 the process that there's something very basic that we
10 didn't consider that you guys wanted us to consider,
11 because we did not involve you at the beginning. So we
12 don't have the answers to everything now, because we are
13 just starting, but we know there are things.

14 We heard the concern about the energy
15 efficiency. That's something that Ian is going to have
16 to look at when they choose panels. What types of
17 panels. Is there metal in the panels, which have more
18 energy efficiency in the them. Address that in the
19 draft. We will include the Vegetation Management Plan,
20 which we typically do; but make a point to include
21 Ironwood, and then you can comment on that. And I'll
22 give you back the mic.

23 MR. FLEMING: Gary Fleming, Lake Tamarisk
24 Resort. We're a private resort, right behind desert
25 territory here. And we echo the same thoughts as Renee

1 does. We're doing everything we can to get people in
2 here, and we're maxed out, too. My concern is, along
3 with everybody else in here, is you say you're sensitive
4 to this area. But you are only the second one to come in
5 ... hearing ... sensitive to this area, when this whole
6 thing is going to be filled out, what are we looking at
7 in ten years? You can dump all the money you want, and
8 we're going to be sitting here with basically nothing.
9 I'd like you to respond to that if you would.

10 MR. BLACK: That was brought up earlier this
11 evening; and for what little it's worth, I've come from a
12 town that became a resort; and the town I grew up in is
13 no longer the town I would call home. So I share those
14 kinds of fears. Business keeps coming in and coming in,
15 and you're feeling like outsiders. They think they know
16 better than the locals do. And they promise a lot of
17 things, and it's vaguely what they will provide. I also
18 don't want to blow any smoke in this room. I don't have
19 answers to the questions.

20 To your point, Donna, I haven't been here for
21 seven months. If it takes me coming back every two weeks
22 for seven months to hear and come up with a better plan,
23 that's what I will do.

24 With regards to the other projects, I think a
25 number of those projects are much earlier in the process

1 of permitting. I don't know how engaged they have been
2 in the community. I don't know what kind of impacts
3 they've assessed. I can't speak intelligently on those,
4 but my understanding is that each and every project
5 connecting to the Red Bluff Substation will have to cross
6 BLM land, will have to cross Federal land to get to the
7 substation. And my understanding of that policy is that
8 they will need BLM's permission to develop the project,
9 which means they will be required to do public scoping
10 that maybe they aren't doing voluntarily. They will have
11 to stand up, and you can reask that question over and
12 over again.

13 There will be a line at some point, I am sure.
14 I don't know where that is. And it won't be driven just
15 by this community. There are questions from utilities.
16 There are questions at state level. There are questions
17 at federal level. There are questions at every single
18 level that sound a lot like these questions.

19 What are our goals with nuclear energy? What
20 are our goals with solar energy? What impacts? What
21 kind of benefits do they need to provide? And it's every
22 single conversation I have is about that.

23 MR. FLEMING: I think first -- Gary Fleming --
24 address the people who actually live in the community,
25 not the people that, you know, want it to happen.

1 MR. BLACK: Sure. I agree with you.

2 MR. FLEMING: That might be a good starting
3 point.

4 MR. BLACK: Yeah. There's different ways you
5 can organize what it is this community needs. Maybe
6 through the Chamber of Commerce or meetings like this.
7 Happy to have this. The reason that I have been going to
8 the meetings, they are monthly, they have specific topics
9 being covered; and a lot of those are regarding
10 education, work force development, and specific ways
11 projects can try and help the community. But I realize
12 that Palm Springs is 50 miles away, 60 miles away.

13 MR. DONALDSON: George Donaldson.

14 I wonder what is the temperature drop in the
15 shaded area with wooded panels as compared to the trees,
16 low trees.

17 MR. BLACK: Sure.

18 MALE: Ian, I'm sorry for not answering this
19 directly, but one thing we are looking at permitting this
20 project as a single access tracking project. That may be
21 more economical use of the land than a fixed hill
22 project, under which case the temperature will change,
23 based on what time of day it is; but I'm happy to follow
24 up and provide temperature.

25 MR. CHARPIED: Larry Charpied. And it's related

1 to what you said, have you looked at private lands, too?
2 Did you look at the 6,000 acres of disturbed lands that
3 have that high line going through the middle of it?

4 MR. BLACK: Is that the SCE line?

5 MR. CHARPIED: Correct.

6 MR. BLACK: Yes.

7 MR. CHARPIED: You determined they weren't
8 compatible or usable, because it's already disturbed? I
9 thought that was one of the priorities.

10 MR. BLACK: Well, a number of those that
11 surround Desert Center are owned by another developer,
12 and they have been changing hands over time.

13 MR. CHARPIED: So you would have to buy them?

14 MR. BLACK: We would potentially have to buy
15 them.

16 MR. CHARPIED: Which I would prefer over free
17 government land.

18 The second thing: What studies have you done on
19 our aquifers, as well far as, recharge, those types of
20 things?

21 MR. BLACK: Our recharge study, desktop study
22 follow-up from Desert Sunlight about recharge and about
23 water flow.

24 MR. CHARPIED: Nothing, because there's nothing
25 in there.

1 MR. BLACK: Sure. We have been trying to depend
2 on existing data, rather than drilling a well to find
3 out.

4 MR. CHARPIED: Make stuff up, basically, if you
5 don't drill a well to determine how much water is there.
6 What happens when you suck it out? How long does it take
7 to come back to level? If you don't do any of those
8 things, then you haven't done anything. They were lucky
9 they didn't get sued. You will, unless you do this.

10 MR. BLACK: Okay. I love ideas on where we
11 should drill a well to do that study. There have been
12 questions about disturbing lands around Lake Tamarisk.
13 We want to be conscious of that. We don't have a license
14 to drill on your project site right now. We are an
15 applicant. We don't have any rights to drill now. If
16 there are private parcels in the area willing to allow us
17 to do that, conduct a study, I think we're open to that.

18 MS. COON: My name is Johnney Coon. And I am
19 actually going to ask pretty much the same question about
20 private land. There's lots of disturbed land out here,
21 Old Jojoba Field. Destroyed fields, thousands of acres.
22 Have you attempted to purchase or -- I mean --

23 MR. BLACK: Yes, we have. We are actively
24 engaged in trying to acquire some of those disturbed
25 lands.

1 MS. COON: BLM land is really public land, it is
2 disturbed, and, you know, totally graded over.
3 Everything is killed. All the plants and animals are
4 gone. It's going to be ruined forever. We had some land
5 that was graded back in the 50's, and it has very little
6 vegetation on it. The desert's ecosystem just does not
7 jump back like other places do. Once you have done that,
8 it's pretty much destroyed, and it is the public's land.
9 So it's, you know, the value is screwed. I think it's
10 too bad, because it's beautiful out here. I have been
11 out here for 35 years. I think it's atrocious what's
12 happening.

13 I think you should first go and use all the
14 disturbed land first. I think the Government should not
15 be giving this land away. I think it's shameful.

16 MS. CHARPIED: It is shameful.

17 MR. CHARPIED: It's a shame.

18 MR. BLACK: I want to clear up one point, Larry.
19 You might have said free land. It's not free land.
20 We're buying it.

21 MR. CHARPIED: 36 bucks a year for the next 20
22 years.

23 MR. BLACK: No. No.

24 MS. ELSER: All of these projects come with
25 mitigation; and besides the rent that they have to pay

1 for renting the land, which is significant --

2 MR. CHARPIED: Which is what?

3 MS. ELSER: ... net. They also have mitigation
4 for the desert tortoise. There will be mitigation --
5 mitigation will be in the Draft EIS. I cannot say that
6 it's been determined at this point in time, but most of
7 the applicants have had to purchase land to replace the
8 land that they have taken in the wilderness area and
9 wildlife management areas. We have some -- many of our
10 applications that have been processed recently, they are
11 purchasing five acres of land for every acre of land that
12 they have used for their development. Almost always
13 there is a mitigation clause, and they purchase land.
14 They give us the money to purchase land back.

15 MS. CHARPIED: But that's off site. That's not
16 land purchased here to be protected forever.

17 MS. ELSER: ... Joshua Tree. I think there is
18 one in their wilderness, the park service will ...
19 mitigation money to purchase that land if it's available
20 for sale. Something local that the local species can
21 use. That's our first priority. The Desert Wildlife
22 Management Area that is a priority area for BLM to
23 purchase land. If we can at all purchase in that Desert
24 Wildlife Management Area, that's where we will purchase.
25 We try to purchase high priority land for the species

1 that's impacted as close to the project as we can.

2 MR. BLACK: Specifically, there are a number of
3 extracted industries paying the federal government \$30
4 ... We will be paying several hundred thousand dollars
5 per year in lease payments.

6 MR. CHARPIED: And where does that go?

7 MS. ELSER: It goes to the U.S. Treasury. The
8 BLM gets about a billion dollars a year in money, rents
9 and royalties, return \$10 billion to the U.S. Treasury.
10 It's mixed with your taxes and everything else to pay the
11 Federal Government's bills or cost of operation.

12 MR. CHARPIED: So not only do we give them the
13 land or let them rent it, but the money goes to the
14 Government and goes somewhere else.

15 MS. ELSER: It goes to wherever the money is
16 funding. It just goes to the treasury, federal funds.

17 MR. BLACK: Larry, your point, maybe it's not
18 being localized enough. Several million dollars per year
19 BLM pays and uses taxes to Riverside County for the use
20 of land in Riverside County. All right. If it's
21 \$3 million or \$7 million, annually. It's several million
22 dollars.

23 MR. CHARPIED: That's the wind projects in
24 Coachella, not just solar.

25 MR. BLACK: I think it includes prison, as well.

1 MS. CASTER: Renee Caster, again. One for Ian,
2 and one for Lynette.

3 For Ian first. When we were talking about the
4 water, everybody talks about, you know, doing the test or
5 going off somebody else's studies, and how it's going to
6 be impacted. Has anybody actually tested when there's
7 two projects at a time? When there's three projects at a
8 time? When there's eight projects at a time? It seems
9 to me it's on an individual project basis. I would like
10 to know how eight projects at a time are going to affect
11 the valley's water table.

12 MS. ELSER: This will be a section, Cumulative
13 Events, it's a very large section, it looks at all of the
14 other actions that are taking place, not only solar
15 development or wind development, but anything that is
16 going on from any federal agency to county. The farm is
17 going in. The farm is going out. Anything that we know
18 of that's reasonably foreseeable is analyzed; and they
19 look at the water impact, also look at air, wildlife,
20 everything that you can think of for priority analysis
21 would be looked at. And it's called the Cumulative
22 Effects section. Goes into great detail of all of the
23 other projects that are potential. Terms used,
24 reasonable foreseeable, and we will be analyzing those.

25 MS. CASTER: And for you, Lynette. For the BLM,

1 I would really like to see the BLM more involved with
2 this community, because the Palen Project almost went in
3 without us ever realizing it, because they did not have a
4 meeting here. If it hadn't been for a technical
5 difficulty, they would be breaking ground right now. And
6 we didn't realize it until that comment was made in the
7 newspaper. Palen is a Desert Center project, and I
8 really would like Desert Center to be involved in that
9 it's our water, our facilities, and not Blythe.

10 MS. ELSER: I will certainly pass that on to the
11 other project managers. Sometimes we are the lead
12 agency, and we control wherever we meet, and we can make
13 those determinations. Sometimes we are not the lead
14 agency on a project. Energy Community is the lead
15 agency, and they take those calls, and we go with them.
16 Just like on this project, Riverside County is involved.
17 We're making the calls. They are following with us. If
18 they object, we certainly consider their objection and
19 try to accommodate them. Sometimes the projects, we will
20 have ultimate control. Sometimes, we don't. I will pass
21 that comment. It is a very good comment.

22 I do like to have meetings in the local
23 community. They're the ones that know more about what's
24 going on in that community and how they are being
25 impacted.

1 Did anybody else have a comment on Ian's
2 presentation before we finish our overall?

3 MR. CHARPIED: Just wanted to say one more
4 thing. You brought it up about the water. This is Larry
5 Charpied.

6 We talked about the water briefly. The USGS did
7 a study of our aquifer to determine recharge. The way
8 they determine recharge was to measure tritium from the
9 nukes in the '60s, got in the air, and go to the water,
10 recharge into the water. They determine there is no
11 tritium in our water, then they determine there's no
12 recharge. So we're living off the ancient water. So
13 what you are telling me now with this project and your
14 project is that depletion is inevitable.

15 The project in Blythe, everybody, all you, say
16 that this is a uniform aquifer ... that there's billions
17 and billions of gallons of water under there. Obviously,
18 that's not true. I am concerned about our local area,
19 and how are you going to determine recharge?

20 MR. BLACK: I am just now finishing the scoping
21 on that study. So I can't answer exactly what we are
22 going to show for recharge, but it is one of our
23 priorities this fall. The next two months, in the months
24 following, we have a lot of -- we have all of the
25 remaining studies we haven't done. We've done three

1 quarters of protocol studies required for biological
2 requirements. We still have ... the next three months.

3 MR. CHARPIED: One last thing, Lynette.

4 MS. ELSER: Sure.

5 MR. CHARPIED: We actually have a water well and
6 three monitoring wells on our property. We would be more
7 than happy for you to come and do baseline studies.

8 MR. BLACK: We'll look into that.

9 MS. ELSER: Any other comments now on Ian's
10 presentation? If not, we can finish the presentation;
11 and then after that part, over three or four more
12 minutes, we will open it for comments again.

13 Does anybody have a comment now?

14 MR. SMITH: Yeah. My name is Phil Smith, Member
15 of the Colorado River Tribe. I heard you mention that
16 they'd participate? You had contacted them?

17 MR. BLACK: Correct.

18 MR. SMITH: I am kind of surprised. I haven't
19 heard. I don't live in Parker. I live in Needles. A
20 member of the tribe is always going to the council to
21 talk to the people about the project ... giving me one
22 today right now. Heard about it. Surprised. Who was
23 the guy you met?

24 MR. BLACK: I don't have the list in front of
25 me, but I can write it or Lynette. All the letters went

1 out, as well as e-mail. That was two months ago now, but
2 I will -- I'll provide that list of exactly who received
3 the correspondence and phone calls.

4 MR. SMITH: With the BLM, I've never understand
5 what their duties are, their job in the desert. This
6 past concept, past a lot at one time, Desert Protection
7 Act. And just don't seem to be working at all. It gets
8 overridden by other political people to, you know,
9 ramrod, go around or go under, whichever way it is. Just
10 how are you protecting the desert?

11 MS. ELSER: The BLM does have a unique job.
12 It's different than the Park Service or the Forrest
13 Service. We do have conservation. It is a California
14 Desert Conservation Area; but at the same time, we're
15 supposed to be returning to the Federal Treasury value
16 for the land. We're supposed to be using multiple use,
17 sustainable yield. That's what the California desert is
18 managed with. So we try to have multiple use. We try to
19 allow recreation, backpacking. We try to allow habitat
20 for animals. We try to have conservative cultural
21 resources. We try to do a lot of different things.
22 Sometimes they are in conflict. Sometimes you have to
23 balance it, and you have to say you can't recreate here
24 in that type of recreation, because we're trying to
25 manage this land for something else.

1 That's why in the California Desert Conservation
2 Area Plan we have things that are similar to zones, but
3 not exactly. That's why on the one map that was up, the
4 Desert Wildlife Management Area that's managed for
5 tortoises, this application had a part of the solar field
6 in that Desert Wildlife Management Area. We told Ian we
7 can't go forward, as long as your application is in
8 there. We manage that area for desert tortoises. We
9 have a different use for it. That is one of the areas
10 that's highly protected. We have wilderness highly
11 protected and do not allow development in the wilderness
12 area.

13 There's areas like the General Wildlife Area.
14 We tend to allow some sorts of impacts in those areas.
15 We try not to most of the time, but there are exceptions.
16 Then we have other areas, like where this project is.
17 It's open for use. It's not in a protected area that's
18 managed for anything else. So the zoning type of a
19 classification that we have for that, it is available for
20 development. We try to manage by a type of a zoning,
21 which has different areas, different levels of
22 protection; but there are areas within the California
23 Desert Conservation Area that can be heavily impacted,
24 and that's allowable under the Plan.

25 MR. SMITH: In other words, it's just like any

1 other work. If Congress wants to override something,
2 they do it.

3 MS. ELSER: For us not -- it's not overriding.
4 It's balancing a mission that's in conflict with itself.
5 Because our mission says: Provide recreation. Provide
6 energy development. Provide transmission corridors. Oh,
7 yes, and conserve also.

8 So we have this mission that tells us to do a
9 lot of things that can't happen on the same piece of
10 land. So that's why we have what's kind of like a zoning
11 setup. We have multiple use classes; and on top of the
12 multiple use classes, we have wildlife management areas,
13 and wilderness, and wilderness areas. So it's just the
14 way to manage with really conflicting directions.

15 MR. SMITH: ... have the cultural side, the tech
16 area, the off-roaders, and the wildlife, and all the --
17 in case of redevelopment, or redevelopments, I guess,
18 which I realize that the BLM had sold some of these
19 lands, like up in Laughlin area, sold land. Highest
20 bidder. You have one ranger for three million acres.
21 One ranger, or something like that, for several areas,
22 because they can't afford -- yet, they are in the real
23 estate business. They are selling land. Where does that
24 money go?

25 MS. ELSER: It depends upon what land is being

1 sold. The State of Nevada has a law that was enacted by
2 Congress that allows them to sell surplus land there, and
3 the vast majority of Nevada is public land. So the
4 Federal Government doesn't need all that Public Land, and
5 it's impeding some of the development of the state.
6 There was a law so that the BLM in Nevada gets to keep
7 the money that they get for selling the land to be able
8 to determine which lands should be sold and which lands
9 shouldn't. Most of the time when BLM sells, the funds go
10 to the U.S. Treasury. If we sell land in California, the
11 money goes to the U.S. Treasury. Nevada is the big
12 exception there. And we do sell land when we have
13 isolated parcels. It's very difficult to manage the
14 isolated parcels.

15 In some of the areas, because the railroad
16 development came through, the Federal Government gave the
17 company putting in the railroad land. So they got every
18 other square, looks like a checkerboard pattern; and the
19 BLM had the opposite square mile squares. Very difficult
20 to manage them that way. Some of those checkerboards
21 remained with the railroad company. The idea was that
22 they could trade the checkerboard parts in some pathway,
23 because a pathway hadn't been determined at that time.
24 Years and years and years later, when the railroad was
25 done, we still had the checkerboard pattern. And that's

1 when the BLM ... so we worked to purchase the
2 checkerboard patterns back, and that land -- that's a
3 conservation easement that was purchased back on --
4 easement on paper -- an easement in the way that we
5 manage it. So those checkerboard lands are now part of
6 BLM management, and we manage that land.

7 There's other times when we have parcels
8 isolated, not connected to any other private parcel, with
9 Federal Land all around. It doesn't have any use for the
10 Federal Government. It's very difficult to manage it. A
11 lot of times, it becomes a community local dump, because
12 we're not there, and we can't be there every day. So
13 that's where everybody puts their junk. So those types
14 of parcels we would probably put in our plan that we
15 would like to get rid of them, and put them --

16 FEMALE: How is this going to affect Desert
17 Center before we get a crash course on BLM?

18 MR. SMITH: (No mic.) There's a new federal
19 mandate, seems like federal or the companies --

20 MS. ELSER: That was a report put out by the
21 Sierra Club, and I haven't actually read it. So I can't
22 tell you. Lloyd brought it here from our Desert Advisory
23 Council. Maybe he can answer. I have not read it yet.
24 I just got a copy tonight. So I can't answer anything
25 about that. You could talk to Lloyd after the meeting,

1 and he can probably tell you all about it.

2 MR. SMITH: (No mic) The concern about these
3 panels coming in, if we talk about economics or country.
4 Better, country. They have football stuff ... different
5 board in here. I don't think --

6 MALE: Let's finish the presentation.

7 MS. CHARPIED: (No mic.) (Something about the
8 Environmental Quality Act.)

9 MS. ELSER: Actually, the Environmental Quality
10 Act does allow a State Agency or County or CEQA purposes
11 to adopt a Federal EIS, if it has everything that they
12 need in it to adopt it. So they are going to, in all
13 likelihood -- I can't speak for them, and they didn't
14 come tonight -- but in all likelihood, they will be
15 adopting the EIS. They are working with us, and the EIS
16 will have a section after each analysis that says "For
17 CEQA Purposes," and then it will list it; but it will not
18 be officially in the EIR.

19 FEMALE: (No mic) ... this works, then, the CEQA
20 purposes, we can sue the County of Riverside to advocate
21 the responsibilities to the Federal Government and
22 advocating their decision making powers to somebody else.

23 MS. ELSER: I am not going to answer that
24 question.

25 MR. CHARPIED: You can say yes.

1 FEMALE: Thank you. He cleared it up for me.

2 (Ms. Elser continues the presentation.)

3 MR. CHARPIED: I am completely confused now.

4 First Solar is doing a CDCA Plan Amendment; right?

5 Aren't you guys going to do a plan amendment?

6 MS. ELSER: Yeah.

7 MR. CHARPIED: So, then, what did you just say?

8 MS. ELSER: Considering a plan amendment --

9 MR. CHARPIED: Oh, okay.

10 MS. ELSER: -- if we decide to grant a right of
11 way. If we deny a project to not have a right of way,
12 may or may not submit the CDCA plan.

13 (Ms. Elser continues the presentation.)

14 MR. GUNN: (No mic) How do you introduce an
15 alternative plan? Say if I had an alternative plan for a
16 solar project in that specific area, how do I introduce
17 that to the BLM?

18 MS. ELSER: You could either give us written
19 comments now, or you can --

20 MR. GUNN: No. Maybe a document.

21 MS. ELSER: You can mail it to me. You can send
22 it to the e-mail address, which is "cadesertharvest" --

23 MR. BLACK: I think you have a whole slide on
24 it.

25 MS. ELSER: Yeah.

1 -- "@blm.gov." Okay.

2 MALE: What about street sweeper machine and
3 someone to operate it weekly?

4 MS. ELSER: Let us finish, and then formal
5 comments.

6 MR. GUNN: I just want to make a comment. I
7 have been here a couple days, and I couldn't find hardly
8 anyone that knew there was a meeting tonight, and nothing
9 posted in town or anything. I was just saying that I
10 hope they could do a better job next time in letting the
11 community know when they are having a meeting. Because I
12 was at Desert Center for two days, and hardly anyone knew
13 there was going to be a meeting tonight, and nothing
14 posted in town that there was going to be a meeting.

15 MS. ELSER: We did not post anything in town.
16 And when we back for the draft, we can do that by press
17 release. Newspaper maybe would have picked up on the
18 press release. We also sent out mail notices to people,
19 anybody that was involved in The Desert Sunlight Project
20 should have gotten a flier sent to their home. We used
21 The Desert Sunlight's mailing list as our base. So if
22 your address was with Desert Sunlight and it was clear
23 for us to read, you should have gotten a flier. We do
24 have a huge number that are returned; because when you
25 sign in, if you don't write clear enough that we can

1 figure it out, the mail gets returned, and you don't get
2 on the mailing list. So make sure that yours is legible
3 on the sheets here.

4 Let's finish up, then we will let you start.

5 (Ms. Elser completes presentation.)

6 MS. MITCHELL: We have speaker cards. First one
7 is Alfredo Figueroa, and next is going to be Ron -- I
8 can't read it.

9 MR. VAN FLEET: Van Fleet.

10 MS. MITCHELL: Thanks.

11 MS. ELSER: Come up to the microphone here.

12 MR. FIGUEROA: Yes. My name is Alfredo
13 Figueroa, and I'm a representative of the La Cuna de
14 Aztlan Sacred Sites Protection Circle. And I'm also the
15 Chemehuevi Tribal Monitor for the Sacred Sites. And let
16 me tell you, I'm glad to be here. I'm glad that we have
17 a recorder. The last time up in Ivanpah, there was no
18 recorder. Told everybody to meet in a little room there,
19 the table, and nobody was hearing what everybody was
20 saying. And then finally, last week or two weeks ago,
21 down to McCoy Wash Project, there north of the Blythe
22 project, and, by golly, they allowed us to speak after
23 the newspaper had reported that the BLM had a new policy.
24 Because this is America, and we're supposed to have our
25 thoughts spoken out loud and clear. And that's why I am

1 here.

2 You know, all these projects right here is just
3 an extension of the solar, and this is just a mockery of
4 what we have been trying to say, that we are going to
5 develop industry and all that. Thousands and thousands
6 of acres are proposed right here on the eastern Riverside
7 County I-10 Corridor. My lands, you know what I mean.

8 He said something, our guy over here, he said,
9 you know -- there he is. You can put it on the rooftops.
10 We're not against solar panels, but we are against
11 destroying our Sacred Sites and all this pristine desert.
12 We're going to fight. There is a group suing right now.
13 So don't worry. We're in Federal Court right now, and
14 we're going to continue.

15 Now, right now, all these solar panels in China,
16 they are protesting Jenco projects. Why? Because they
17 are contaminating all the greenery, all the agriculture.
18 They contaminate the water in China. China is the one
19 that's building, and they are protesting them out right
20 now.

21 The other thing, I have a friend. He worked in
22 the one over there by Geico, that one that got destroyed.
23 No bird flies over them. They get cooked. Bingo. That
24 includes eagles and everything else. Let me tell you --
25 and every time we eat there, enterprise, all you find now

1 is Solyndra. Solyndra, excellent example of the
2 Governments freebies. Fast track. Run the hurdles
3 through. Pass that law. That bill establishes when the
4 Constitution was started, let me tell you. These
5 blackout transmissions that happened a month ago, that's
6 one of the, you know, why do you have transmissions?
7 Urban yards.

8 Thank you very much.

9 MS. MITCHELL: (Time.)

10 Ron Van Fleet and Phillip Smith, next.

11 MR. VAN FLEET: Ron Van Fleet. That's what I
12 said, we do a Spiritual Run from here, I'm the Holy Man
13 for the tribes, not just one tribe, but all the tribes on
14 the Colorado River; and we ended in New Mexico City at
15 the Pyramid of the Sun and the Moon, and that was back in
16 '92. And what we do is we run from sunup to sundown
17 praying, you know. That's my deal here is to pray.

18 And you heard Alfredo say about the migratory
19 birds going to the Salton Sea. What are they going to do
20 with the solar panels? Right into them. There's a lot
21 of bees, ants; and up north, what's that one we did the
22 Spiritual Run for? Ivanpah, yeah. We did that. And
23 there's trillions of ants on the ground. Pristine land.
24 And they only took the adult turtles, and the baby
25 turtles are still there on Ivanpah. For the next crop,

1 they are there, you know. So they are just genociding
2 all the turtles; and, yes, they moved the adult turtles.
3 But that area is the only place where food grows for the
4 turtles, and they cut them off to their food; and if the
5 food does not grow at the places they connected, well,
6 they will eat anything, you say. I don't know.

7 And right here is the Salt Song, which we still
8 sing at cremation. It covers this area, this Eagle
9 Mountain, and comes down these mountain trails, comes
10 right across the valley, goes right into the area over
11 here, you know, all the tribes along the Colorado River
12 and even into Maricopa, the Hopis. They all have these
13 Salt Songs that cover the desert. BLM, they don't
14 recognize it. The ... already torn it up in Blythe, you
15 know. These are dance patterns.

16 If you go to the cremation ground inside right
17 now today where we're cremating, and we sing all day and
18 all night, four days and four nights. The Mohave Bird
19 singers will dance here. And then the Cocopahs will
20 dance in another pattern over here, and the Cuchans come
21 with their dance over here. And you'll see these
22 patterns out in the desert. You'll see these dance
23 patterns right there, and they just destroy them. And
24 these patterns are leading to the Sacred -- to the Holy
25 Land, as if this is our charge right here, if you could

1 say that. This part, this is where we're going to go in
2 the afterlife. This is where we come and go to the --

3 Thank you.

4 MS. MITCHELL: Time.

5 We've got Phillip Smith and Lloyd Gunn.

6 MR. SMITH: Phil Smith. Member of the Colorado
7 River Indian Tribe, Needles. I attended this meeting in
8 Ivanpah about two weeks ago, Public Comments. It was a
9 waste of time for many of us that traveled hundreds of
10 miles. What we said, we're not going to talk about, we
11 have this developer. We have culture. We have these
12 different tables. We'll break it up. You can go to each
13 one. We didn't want that kind of meeting. We want the
14 meeting right now, open to everybody, and open argument
15 with each other, and come to agreement. So we didn't get
16 that in Ivanpah two weeks ago. That's how the Government
17 operates. Like, Ron, lot of cultural ways of thinking,
18 and, like, desert areas. This is where we live. People
19 don't look at it that way today. Why? What's out here?
20 There's nothing out here?

21 Well, the desert was our shopping center.
22 Everything is out here for us. Our food, herbs for our
23 drugs, drug store. We learn how to utilize it. It's
24 getting scraped away.

25 I am really concerned about the desert turtles.

1 They are an endangered species. Their mountain homes are
2 getting scraped away. And the other animals, the same
3 way, whether it's the packrats and the coyotes or the
4 hawks that come down to feed on it. Everything is out of
5 balance, completely out of balance. The world is getting
6 out of balance; but here, we're really out of balance.

7 We have the ozone. We have all of this going
8 on. Everything is -- just because of man, the way they
9 think. It's for free. It's all greed. It's for money.
10 We're dealing with other countries to build our projects
11 for us. They get rich. We get poor, you know.

12 Ivanpah, my understanding, was one of the guys
13 there doing dedication during the -- also was -- Alfredo,
14 what was his name -- Doug Kennedy. He was also there.
15 Kennedy is the stockholder/shareholder of these
16 companies. China is doing this for us. I have nothing
17 against putting projects in. Where do they put it at?
18 They put it on our site. Transmission lines. They talk
19 about transmission lines. Vans. It goes this way. Goes
20 to other site. Where's our monitors? I have never seen
21 a monitor today. From the agent's standpoint, not at
22 Ivanpah, no where.

23 Thank you.

24 MS. MITCHELL: Lloyd Gunn. Next, Renee Caster.

25 MR. GUNN: First of all, I would like to echo

1 Phillip Smith's comments about Ivanpah. Actually, I was
2 privileged to see a Sacred Site, and a final conference
3 call to the California Department of Energy. And I
4 brought up that there was a Sacred Site out there that
5 they completely ignored, even though it was -- BLM had
6 mentioned that there was an Indian site out there. And,
7 well, it's too late. And I don't remember why they just
8 kept me on the line, and it was just a bunch of back
9 slapping, "Hey, give me your e-mails for the last three
10 years," stuff like that.

11 But I also -- there are BLM -- the BLM lands are
12 designated for certain uses; but, now, because it's
13 renewable energy, like with the California Energy
14 Commission is saying, well, not including BLM, but the
15 California Energy Commission, I read some interoffice
16 memos. It said, "We will be breaking County laws, County
17 ordinances; and but we recommend that, because it's
18 renewable energy. We approve it."

19 So it's, basically, even state laws. Federal
20 agencies don't have to abide by state laws if they don't
21 want to. And I would like to see BLM lands, if they're
22 designated to a certain purpose, stay within that
23 purpose, and not make amendments like they are doing now
24 for renewable energy.

25 Thank you.

1 MS. MITCHELL: Thank you. Renee Caster, and
2 then Donna Charpied.

3 MS. CASTER: Renee Caster. Actually, I want to
4 bring this back to the point this has to do with Desert
5 Center. And I really want Desert Center and the
6 community be kept in mind by this project. The first
7 step is coming here. Other than -- first of all, nobody
8 else has. Your company is going to put a lot of demand
9 on this community that, unfortunately, Sun Solar already
10 maxed out. If and when you go by the project timeline
11 you have, they are still going to be here when you start;
12 and that's a huge issue for us. We're -- I mean, not
13 only do we have conservation issues come to our Ironwood
14 Trees and to our water, which we have protected for
15 years --

16 I mean, Palm Springs and Blythe have been trying
17 to annex this for years, and we've protected it. And now
18 it's being used up by everybody else.

19 The other issues are the people. Unfortunately,
20 I get told that we don't count. It's okay to count the
21 tortoise, it's okay to count the flowers; but the people
22 in the community don't count, you know. And we get the
23 whole thing about, oh, well, it will bring our property
24 up. Well, yeah. It might in the short run; but once my
25 backyard's view is no longer the Ironwood Forest I have,

1 and it's full of solar panels, is how the BLM has it
2 planned right now, it's not going to be worth anything.
3 And I am not going to be able to sell it to save my life.

4 What little tourists we get, the snowbirds, they
5 are not going to want to come anymore with their
6 four-by-fours. They won't want to come to our community
7 and spend their money. They are not going to be able to
8 come anymore. BLM is locking everything up. My biggest
9 issue is with BLM. So, I mean -- and I learned tonight
10 that they are probably the biggest oxymoron of all of the
11 Government that exists. By the way, they preserve, but
12 don't preserve. So I just really -- I know you, as a
13 company, are limited on what you can do. I understand
14 what the Charpieds are trying to do.

15 And, really, my issue is with the BLM, the solar
16 projects, the ones making a lot of these decisions, and
17 they bought up all the land for a fact was commercial a
18 few years ago, because I was looking at purchasing it.
19 BLM bought it up knowing this was going to happen. I'm
20 concerned with how we can get some of that back, preserve
21 what we're known for, for having nature and having
22 unadulterated views. And for people coming out visiting
23 us for a desert, not a big solar project. We want to
24 grow, but I don't want to be L.A. I would rather be like
25 Idyllwild, Big Bear. Come visit to play, and then go

1 back home; and I am okay with that.

2 Thank you.

3 MS. MITCHELL: Thank you.

4 Donna Charpied and then Johnney Coon.

5 MS. CHARPIED: Thank you, everybody.

6 I'm Donna Charpied. I'm the Executive Director
7 of the Desert Protection Society, which was formally the
8 Citizens for the Chuckawalla Valley. And that was formed
9 in 1992 to prevent the world's largest garbage dump being
10 built in our community at Eagle Mountain.

11 VOICE: Good job.

12 MS. CHARPIED: And we shall continue our fights
13 to protect this community, to protect the resources of
14 Joshua Three National Park with our dying breath.

15 One thing I have to say is maybe some
16 clarification, is that the Native Resources/Cultural
17 Resources in this Community absolutely does affect Desert
18 Center, and I'm very, very proud that my brother's here
19 from the Native American Community to give us their
20 support today. Thank you very much.

21 I wonder why this project is being processed
22 through the BLM before the problematic on the EIS solar
23 sites setting notice, putting the horse behind the cart
24 here. Maybe your project isn't compatible here. We will
25 find out in that PPIS. I can tell you right now, it

1 isn't.

2 I have had many, many, many meetings, telephone
3 conversations, et cetera, e-mails with First Solar. And
4 they set the standard here for mitigation for night
5 lighting. A large percentage, almost more than
6 90 percent of the transmission lines will be put
7 underground inside the project area. There's nothing to
8 compete with the viewshed of our National Tree Joshua
9 Park. I agree 100 percent with Renee, that this
10 community, just like the Morongo Basin, we can be a
11 gateway community to Joshua Tree National Park and enjoy
12 all of those things that they do over there. That
13 community, they make over \$20 million a year, you know,
14 just because Joshua Tree National Park is next to it.

15 And we're next to Joshua Tree National Park, and
16 we need to defend the honor of this park, because it is
17 going to be destroyed with all these panels here.

18 Furthermore, this valley might be able to
19 sustain four of these very large solar projects. Four of
20 them have already been approved and are in construction
21 phases right now. This community cannot sustain what
22 this project is and what the BLM and President Obama's
23 misguided energy policy is doing is creating an
24 environmental genocide issue right here. We are a small
25 community. We have a very small voice when it comes to

1 voting. Senator Feinstein, there's only 150 of us to
2 vote. This is why they are not putting these things near
3 the grated areas.

4 They should be next to Los Angeles. They should
5 be next to San Diego. They should be on warehouses.
6 They should be on rooftops. They shouldn't be destroying
7 our public lands. When this is all over, none of us will
8 be able to live here anymore.

9 MS. MITCHELL: Johnney Coon and then Larry
10 Charpied.

11 MS. COON: My name is Johnney Coon. I'm a
12 35-year, full-time resident and property owner in Desert
13 Center and am a grape farmer. I would like to go on
14 record as being opposed to this and all large scale solar
15 projects on public lands. The lands in question are
16 predominantly pristine and untouched. Our desert
17 ecosystem is fragile and easily damaged. They support
18 the flora and the fauna. It's beauty and value seems to
19 be underappreciated by those in Government and business
20 who only want to exploit this desert's precious
21 landscape.

22 Once you've scraped off all living matter and
23 turned it into industrial solar complexes, perhaps then
24 we will know what we've lost. I believe solar energy can
25 be a good thing if done right. Solar installations

1 should first be on private land, disturbed land, and on
2 every residential and business rooftop, before pristine
3 land is used. We, the taxpayers, should not have to
4 sacrifice our public lands so corporations can increase
5 their profits and make a quick buck off the destruction.

6 Thank you very much for the opportunity to speak
7 tonight.

8 MS. MITCHELL: Larry Charpied and then Harold
9 Foster.

10 MR. CHARPIED: Let me tell you, I was blown away
11 when listening to this BLM woman here. We see here that
12 25 percent of First Solar is in the desert tortoise area
13 you say you are protecting, and that's why you made them
14 go the red zone, outside where the line goes. So I don't
15 understand what you are talking about there.

16 Second of all, alternatives. Jojoba renewable
17 energy source. When you clean 4,000 or 1,000 acres of
18 desert, all of a sudden all those CO2 changing plants
19 that used to help the atmosphere, because they change CO2
20 to oxygen, are gone. So now your solar actually impacts
21 the atmosphere daily.

22 With Jojoba, you actually can make jobs for
23 200 years, not two or three. You can put it on a car and
24 drive the car with it and drive it somewhere else, and
25 make energy day or night. You can't do that. We need to

1 analyze Jojoba as a viable alternative to this, and you
2 need to get some kind of water study, more than "he said/
3 she said."

4 MS. ELSER: Before the next speaker, I do want
5 to clarify. The area that we did not allow them to go
6 into is the Desert Tortoise Area, which is different from
7 the Desert Wildlife Area. This area here, that is the
8 yellow, that is the area that we allow absolutely no
9 solar development. This blue area is a General Wildlife
10 Corridor. So it is protected at a lower level than the
11 Tortoise Area, like a zoning type of a thing. Sorry I
12 didn't make that clear before.

13 MS. MITCHELL: Harold Foster and Gary Fleming,
14 please.

15 MR. FOSTER: I'm Harold Foster, and I want to
16 say that I am grateful for your coming here this evening
17 and for your expertise in preparing for this solar
18 project that's going on. I'm also grateful we're not
19 here talking about a strip mining operation or a desert
20 mining concern coming in and buying up the Kaiser
21 property and digging up and strip mining that property up
22 there, which is what I thought Desert Center was known
23 as.

24 Before I ever moved here five years ago, it was
25 a penal colony and a mining area. When I drove out and

1 saw this lake, I was blown away. A lake in the middle of
2 the desert with no power lines underground, with its own
3 sewage system, and its own city water. What a beautiful
4 place. I ended up buying here. I lived here for five
5 years. Love Desert Center. But I've got to tell you,
6 I'm really grateful for the fact that the foreclosed
7 house next to me sold, and that every foreclosed property
8 here has sold. And that all these properties that are
9 leased to the solar people are leased.

10 I don't know if Mary's happy or not, but I know
11 a lot of owners that are leasing these properties out to
12 the solar people are very pleased to have the income from
13 those empty properties. I'm very pleased to have the
14 life of people living in those homes that were foreclosed
15 and were blowing down. There was one home abandoned that
16 blew down in the wind, and the owner lives off in Lake
17 Havasu somewhere. A nice guy who lives here and worked
18 at the mine when there was a mining community; but, you
19 know, he wasn't taking care of his property. It was just
20 going to ruin and going to waste, and we had to walk by
21 it on our lakeside. Now we have a new owner who is
22 remodeling it and fixing it up and bringing new life to
23 it. I'm grateful for that. We've had some economic
24 prosperity as a result.

25 I'll tell you something else. There were 74

1 vacant lots in Lake Tamarisk that were developed for
2 those miners that were digging up Joshua Tree and selling
3 it to the Chinese, and shipped it over there, actually.

4 (People speaking over him.)

5 MR. FOSTER: I'm grateful for the problem we
6 have today is one of solar energy. Not that we're
7 digging up the strip mine, not that we're fighting oil
8 exploration. Not that we're arguing about digging up
9 Alaska and turning that into oil, which is what a lot of
10 politicians talk about. "Drill, Baby, drill.

11 Now, I'll tell you, I share a common feeling
12 with all of you, and that is a carpet of mirrors on our
13 desert. I have a fear of that, you know. But this
14 little project is next to a project that's already there
15 using the same transmission lines that are already there,
16 that's going to create another 10 or 12 jobs for this
17 little tiny community. Makes sense to me. Makes clear
18 sense to me, but to carpet our desert and strip our
19 entire desert and put mirrors on every square inch of it?
20 No. I just say let's keep some balance and let's just be
21 happy that we're not fighting the coal industry.

22 Thanks for letting me share.

23 MS. MITCHELL: Next is Gary Fleming, our last
24 speaker.

25 MR. FLEMING: Gary Fleming, Lake Tamarisk

1 Resort. I can start and end this conversation with just
2 the clean water in this area. So vital. Without water,
3 somebody once told me, you don't have shit. No
4 disrespect to the BLM and the solar guys. Sounds to me,
5 listening to everybody here, that BLM, you have no idea
6 what the impact is going to be over the next 10 to
7 20 years in this area.

8 MALE: Forty.

9 MR. FLEMING: Exactly.

10 Simple solutions, you know, community like ours
11 or any other community. You guys are selling off the
12 land and putting these green energy projects in. Why not
13 have a 20-mile square radius per green energy act? Have
14 you thought of something like that? I know it's not a
15 solution, but it may be a start. That way we're only
16 dealing with one, not 20 or 30 in the next 20 years here.

17 Thank you.

18 MS. ELSER: Does anyone else want to fill out a
19 speaker card and speak?

20 Did anybody that filled out a speaker card and
21 already spoke want to speak again? We do have a few
22 minutes left.

23 MR. FIGUEROA: Alfredo.

24 One of the things I didn't say, because they
25 gave us only three minutes -- anyway, this is one of the

1 most sacred areas there is. That mountain is called
2 Eagle Mountain. Cuauhtemoc, which means eagle in our
3 Aztec language. That's why in all the tribes we all
4 regard this mountain as a sacred mountain. And I can
5 take you through and show you the images in the mountains
6 that relate to the story of the Aztec Sandstone Calendar.

7 The last day, Solar, one of the companies that
8 were assisting the First Solar, asked, "Can you take me
9 out there?" I said, "Definitely." She never did contact
10 me. Never. So I'm available. We are available. All of
11 us are available to let you know.

12 We used to get the stone to build our
13 Molcajetes, right here. This mountain right over here is
14 called Chuckawalla, which means Alligator Ridge. The
15 person that's getting up. Why? Because there is five
16 endings and five beginnings. So all this is very, very
17 sacred. Corn Strings, just right down there, these
18 trails, everybody, all our tribes, used to use the trails
19 here for thousands and thousands of years.

20 North of here, four miles from here, you'll find
21 the 13 monuments, which are called 13-Acftl. 13 monuments
22 of the Aztec Sandstone Calendar. This is going to
23 bring many, once it gets out; but we have to protect
24 these sites. We have to have protection fences. And
25 then people here in Desert Center can ... all going to be

1 regulated. We haven't gone off publicly before, because,
2 then, like, what happened over there at Spirit Mountain.
3 They got some people, they were spraying. They threw
4 them in jail. So some of the people say, "Why don't we
5 throw them in jail, the BLM, because they know these
6 sites are sacred, and they continue and try and see how
7 they can overrule our sacred areas."

8 We have been here for thousands of years. We
9 didn't just get off the Greyhound Bus; and these people,
10 you want to know, the archeologists, tell Mr. Jeffery
11 Childers and George Klein to come and see me. Come and
12 see me. I will show them the sites.

13 Thank you very much.

14 MS. ELSER: Would anybody else like to speak?

15 We will conclude the meeting. Ian will be
16 available if you have questions to talk to him about.
17 I'm available. Marisa will be available.

18 Our court reporter will be going home.

19 (The Public Scoping Meeting held in Desert
20 Center was concluded at 8:00 p.m.)

21 * * *

22 ///

23 ///

24 ///

1 CERTIFICATE OF DEPOSITION REPORTER

2
3 I, Rhonda K. Goodman, Certified Shorthand
4 Reporter in and for the State of California, Certificate
5 No. 8857, do hereby certify:

6 That the foregoing meeting was taken before me
7 at the time and place therein set forth,

8 That the Public Scoping Meeting was recorded
9 stenographically by me and thereafter transcribed through
10 computer-aided transcription, said transcript being a
11 true copy of my shorthand notes thereof and a true record
12 of the statements given.

13 I do further certify that I am a disinterested
14 person and am in no way interested in the outcome of this
15 action, nor connected with or related to any of the
16 parties herein.

17 IN WITNESS WHEREOF, I have subscribed my name
18 this date: _____.

19
20
21 _____
22 RHONDA K. GOODMAN
23 CSR NO. 8857
24
25

REPORTER'S TRANSCRIPTION OF COMMENTS RE:

BUREAU OF LAND MANAGEMENT

PUBLIC SCOPING MEETING

DESERT HARVEST SOLAR PROJECT EIS

OCTOBER 2011

DATE: Thursday, October 6, 2011

TIME: 6:00 P.M. to 7:13 P.M.

LOCATION: Joshua Tree Community Center
6171 Sunburst Street
Joshua Tree, California

REPORTED BY: Rhonda K. Goodman
CSR No. 8857

REFERENCE NO: 28719C

1 APPEARANCES:

2 IAN BLACK, enXco

3 LYNNETTE ELSE, Bureau of Land Management

4 MARISA MITCHELL, Aspen Environment Group

5 AUBREY MESCHER, Aspen Environment Group

6 ALEX McINTURFF, Aspen Environment Group

7 LEVY COX, enXco

8
9 THE PUBLIC:

10 BILL LONG, Observer.

11 SHARI LONG, Observer

12 VICTOR FULL, Observer

13 SETH SHTEIR, Observer

14 DEN WINBERRY, Observer

15 LUKE SABUDA, Observer

16 KEN BAEZ, County of Riverside

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1 JOSHUA TREE, CALIFORNIA

2 THURSDAY, OCTOBER 6, 2011

3 6:00 P.M.

4 (Presentation given by Ms. Elser
5 and Mr. Black.)

6 (Interruption of Mr. Black's
7 presentation re water.)

8 * * *

9
10 MR. SHTEIR: Sorry, Ian. Is that during
11 construction? Is that annually?

12 MR. BLACK: No. That is overall. That is total
13 water consumption.

14 MS. MITCHELL: Can you state your name.

15 MR. SHTEIR: Sorry. I'm Seth Shteir, National
16 Parks Conservation Association.

17 MR. BLACK: So, Seth, most of that water
18 consumption will be during construction. We will have
19 panel washing periodically on the project. Our intent is
20 for that amount of washing to decrease over time, soil
21 compaction resettle the area around it. Of course,
22 again, this is a concern both for the County and the park
23 surrounding.

24 Yeah.

25 MR. WINBERRY: Dan Winberry, resident.

1 When you say go city wide, are you talking about
2 the Morongo Basin?

3 MR. BLACK: I guess, there's some discussion of
4 the definition of which, where the basins start and end.
5 My understanding is it's the Coachella Basin Study, but
6 it extends all the way through the East Riverside Solar
7 Energy Zone, and that study is still underway and will be
8 publicly available through BLM.

9 MR. WINBERRY: So you expect this to be
10 basically south of the Joshua Tree National Park?

11 MR. BLACK: Correct. South and east is my
12 understanding.

13 (Mr. Black and Ms. Elser continues
14 presentation.)

15 MR. SHTEIR: Lynette, just one quick question.

16 That's a different e-mail than what's posted on
17 your announcements on the BLM website. Would it be okay
18 to send them to your personal e-mail?

19 MS. ELSER: You can send them to my personal
20 e-mail, but I have 20 projects right now that I am
21 managing; and if my personal e-mail does get full, it
22 will bounce them.

23 MR. SHTEIR: Is that what's published on the
24 paper over here?

25 MS. ELSER: Marissa?

1 MS. MITCHELL: That one is not on the paper, but
2 I can send you an e-mail.

3 MR. SHTEIR: Yeah, that would be greet.

4 MS. ELSER: "California" is what the "ca" stands
5 for. So it's the BLM address within the State of
6 California, and then it's the project name, "desert
7 harvest@blm.gov." If you send it to that one, it should
8 not bounce. That has an infinite capacity to receive.

9 Yes.

10 FEMALE: (Sounded like Joie Fulply.) Joshua
11 Tree.

12 When application is being made, do you encourage
13 the people to look at areas of the private property
14 owners nearby but not on BLM land who might want to
15 develop that's already disturbed, as opposed to putting
16 it on BLM land?

17 And do you charge for the right of way so
18 substantially less that it discourages them from putting
19 it on private property?

20 MS. ELSER: Actually, we do require substantial
21 costs to be made. Almost all of our applications have at
22 least one-to-one mitigation, which means that for every
23 acre under their right of way, they have to buy another
24 acre of land that BLM typically holds title to; although,
25 sometimes California Fish and Game or some other --

1 Joshua Tree might get title to some of it, if there's
2 private land holdings in the park. But because there's
3 impacts on desert tortoise, we require mitigation; and we
4 don't know what the mitigation is at this point in time.
5 It will be one-to-one or one-to-five, which would mean
6 for every one acre they disturb, they have to purchase
7 five acres of land for habitat for tortoises.

8 There are requirements, also, by California
9 Department Fish and Game for mitigation. Some of the
10 mitigation requirements will overlap, like, if BLM
11 requires one-to-one for desert tortoise, then California
12 Fish and Game might require one-to-three. So we would
13 get the first acre per acre match, and the second and
14 third acre per acre match would go to California
15 Department of Fish and Game.

16 All of the mitigation will be laid out, whatever
17 is decided in the end in the Draft EIS, but it typically
18 costs the developers more to actually use the federal
19 land than if they went out and purchased land. In
20 talking to some developers -- not at all to this
21 developer. This is a general statement -- sometimes they
22 don't like to take the risk of purchasing private land.
23 They also don't like private landowner contracts, who may
24 pass away. Their heirs may not want to do the same
25 thing. So rent may increase. They don't have control

1 over it. Where they feel that the Government rent level
2 is more stable. It does increase. It's based upon a
3 formula, but it's not the same as a private property
4 owner who can change it to what they want.

5 MR. SHTEIR: I just have a quick question for
6 Ian about the life of the project. How long?

7 MR. BLACK: Typically, PPA's are 20 years.

8 As I mentioned before, we both own and operate a
9 good deal of wind turbines in the Palm Springs area. One
10 thing, but a lot of those projects are actually coming to
11 the end of their contracted life; and we are going
12 through the decommissioning process on some, also
13 repowering others. So we're actually in the process
14 right now of taking turbines down and revegetating and
15 resoiling the landscape. So we are now gaining a lot of
16 experience in the decommissioning process, as well. And
17 this one will have far less concrete, far less foundation
18 than you would find on a typical wind farm.

19 MR. SHTEIR: Thank you.

20 MS. ELSER: And the other part of your question,
21 before the projects get to this far, the Applicants have
22 had to meet with a BLM staffer. We explain what resource
23 values are in that land and what the conflicts are. They
24 have had to offer other agencies to come to a meeting,
25 including tribes, to see what their concerns are. And we

1 have to feel that there's a viable project. We don't
2 require that they look at other private land; but,
3 typically, when they are looking at which land they want
4 to include, they do scope out private land. I know from
5 a previous scoping meeting on this project, there is a
6 private landowner that is interested in developing, but
7 his parcels are split, and it's a total of 600 acres.
8 They may be two miles away from each other. I think it
9 would be probably hard to develop very small areas like
10 that, because you would do so much resource impact
11 getting the transmission.

12 MR. SHTEIR: One last question about this; and,
13 Ian, you might not know this already. How many access
14 roads for servicing and stuff like that will be
15 constructed to the east and west line?

16 MR. BLACK: Our goal, primary access is through
17 Kaiser Road, existing paved county road on the western
18 side of the project. Right now, we don't have a
19 secondary access road; and it may be that we don't need
20 one. But there are disturbed parcels to the east of us
21 that right now are accessed by private dirt roads. We
22 have not gotten that far with the County on do we need a
23 secondary access road, but that is part of the process.

24 MR. SHTEIR: And that will be covered in the
25 Draft EIS?

1 MR. BLACK: Yeah.

2 MR. BAEZ: The road right by Kaiser Road is part
3 of the entitlement for the public use permit for the
4 transition line that the County is looking at --

5 MS. MITCHELL: I'm sorry. You're Ken Baez.

6 MR. BAEZ: Sorry. Yeah. Ken Baez, County of
7 Riverside. We talked on the phone this morning.

8 So what our responsibility is, as Lynette
9 indicated, was to look at the primary transmission lines
10 or any other county jurisdiction that's involved with
11 respect to the right of way encroachment permit that they
12 would also have to follow. We would, then, also do the
13 analysis under CEQA Guidelines 15221, which allows us to
14 use EIS for CEQA analysis and be current with that. So
15 that's what we're looking at doing.

16 MR. SHTEIR: Sure. But it's reasonable to
17 assume that aside from the access point through Kaiser
18 Road that they will, you know, need some smaller
19 servicing roads for maintenance and things like that.

20 MR. BLACK: Yeah. And if the Gen-Tie follows
21 along Kaiser Road, access will be --

22 MR. SHTEIR: Thank you.

23 MS. ELSER: And the gravel roads that you
24 discussed in your presentation, Ian, would be with gravel
25 roads within the fenced right of way; right?

1 MR. BLACK: Right. Gravel roads between rows of
2 panels for maintenance and operations work.

3 MR. SHTEIR: Thank you.

4 MS. ELSER: It's now time for comments. Marissa
5 will now collect the speaker cards.

6 MR. SHTEIR: Some of us have already turned in
7 our speaker cards.

8 MS. MITCHELL: Yeah, I have one. Seth Shteir.

9 MR. SHTEIR: That's me.

10 MS. MITCHELL: Okay. If you wouldn't mind
11 coming up here and stating your name.

12 MS. ELSER: And we're limiting each to three
13 minutes; but if you would like another turn, I am sure
14 there will be time. There's not that many people here.

15 MR. SHTEIR: Seth Shteir, and don't try to spell
16 that.

17 Hi, my name is Seth Shteir. I work for National
18 Parks Conservation Association. I'm the field rep for
19 this area, and I want to thank for the you opportunity to
20 give comments tonight.

21 National Parks Conservation Association is an
22 organization that's dedicated to preserving and
23 protecting America's national parks, and we believe in
24 investing in renewable energy future, but believe it must
25 be done in a way that doesn't jeopardize critical

1 resources like our national parks and sensitive areas.

2 I have a number of scoping comments about this
3 project, and many of them are questions that I hope will
4 be addressed in the Draft EIS. And they basically break
5 down to Air Quality, Water Resources, Desert Tortoise
6 categories.

7 So the first thing I'd like submitted to the
8 public record is that Joshua Tree National Park is
9 managed as a Class I Airshed, which means it received the
10 highest level of protection under the Clean Air Act. And
11 while that is the case, Joshua Tree National Park also
12 has many violations of ozones and other violations each
13 year. In fact, when you stand on the mile high Key's,
14 you overlook it. Many times you can't see the tip-top of
15 Mt. San Jacinto, about 50 miles away. So air quality is
16 something that we definitely struggle with at Joshua Tree
17 National Park.

18 And let me just add that this project is
19 directed at improving air quality by providing a clean,
20 renewable source of energy, and is not based on any
21 combustibile fuel; but at the same time, construction is a
22 messy project.

23 And so let me address this in two ways. One is
24 the specific impacts to this project, which may not be
25 huge; but I think what is needed also in this Draft EIS

1 is a cumulative impact, a look at, basically, the de
2 facto industrialization of the southern part of the park.
3 And let me read you some figures on why I think that.

4 So down below the park in the area we're talking
5 about, you have the Desert Sunlight Solar Farm; your
6 project, Desert Harvest; Ridgeline Energy Project;
7 Chuckwalla Solar Project; Palen Solar Project. And a
8 little to the east, you've got the over 200,000 acres of
9 Riverside East Solar Zone. So when we talk about air
10 quality impacts from construction, we're not just talking
11 about one project, but really talking about a concert of
12 effects here. And we're talking about how that concert
13 effects impact a national treasure and its Class I
14 Airshed.

15 So here's a few questions that I would like to
16 see addressed in the Draft EIS, and I would like to see
17 them addressed particularly in respect to cumulative
18 impacts but also specific project impacts.

19 How will the cumulative impacts of the removal
20 of vegetation and disturbance of soils from projects like
21 the aforementioned, the ones I mentioned, impact air
22 quality in the Chuckwalla Valley, the surrounding
23 wilderness, adjacent Chuckwalla Desert Wildlife
24 Management Area, and Joshua Tree National Park?

25 No. 2, How will cumulative and project specific

1 effects of the operation of mechanized equipment during
2 construction of these projects also affect the Chuckwalla
3 Valley, surrounding wilderness, adjacent Chuckwalla
4 Desert Wildlife Management Area, and Joshua Tree National
5 Park? Because we're looking, you know, we're talking not
6 only about possibly fugitive dust from operations. We're
7 also talking about many, many vehicle trips. And when
8 you talk about the level of development we're talking
9 about, you are talking about decreased nitrogen
10 deposition, you're talking about increased ozone, and you
11 are talking about increased particulate matter.

12 MS. ELSER: The three minutes are up.

13 Just a minute.

14 Does anybody object if he continues?

15 VOICES: No.

16 MS. ELSER: Go ahead. Just want to be fair to
17 everyone.

18 MR. SHTEIR: You've got the gavel.

19 Okay. So next problem is, you know, you don't
20 know what the effects are until you begin to monitor the
21 effects. So how will those effects be monitored? That's
22 a question I would like to see addressed in this Draft
23 EIS. We have some monitoring stations in the park, but
24 perhaps we need more down in that area. We need a
25 baseline, first of all, to tell what the air quality is.

1 Second of all, we need to monitor the project's
2 specific impacts and the cumulative air quality impacts
3 of the projects I mentioned.

4 What steps will be taken to mitigate and improve
5 air quality of the aforementioned projects?

6 What steps will be taken during construction to
7 protect viewsheds and visibility from Joshua Tree
8 National Park?

9 What steps will be taken to mitigate light
10 pollution and fugitive dust that could harm Joshua Tree
11 National Park's night sky resources?

12 A good friend of mine says that this is the one
13 area in the park, the eastern section of the park, where
14 you can sit outside, stare up at the night skies, be
15 sitting next to your girlfriend or significant other,
16 look at them and not see them. So that may be a good
17 thing or bad thing.

18 So what design steps will be undertaken to
19 minimize this project's form, line, and color from
20 mountainous viewing positions in the wilderness or Joshua
21 Tree National Park?

22 There are visual impacts from the wilderness
23 inside Joshua Tree National Park. There are high viewing
24 points looking down over this project. What's going to
25 be done to minimize line, form, and color of this

1 project?

2 Let me go on to water resource, and many of
3 these comments are in a similar vein. You know, Ian
4 mentioned that there would be, I think, 800-acre fee,
5 Ian; is that right?

6 MR. BLACK: No. Less than that.

7 MR. SHTEIR: Less than that. So that doesn't
8 sound like a lot, and it may not be a lot; but, again, it
9 has to be taken in with the full concert of projects.
10 You've got numerous projects all drawing on water
11 resources. What will be those cumulative effects?

12 The Chuckwalla Valley Groundwater Basin received
13 both surface and groundwater inflow from the Pinto Valley
14 Groundwater Basin, part of which is below Joshua Tree
15 National Park. Drawing on our water sources could affect
16 water resources within the park. Could impact
17 vegetation. Could impact wildlife species potentially.

18 Let me say that just a few of the projects,
19 which will use significant amount of water, is the Eagle
20 Crest Pumped Storage Project, Desert Sunlight Solar Farm,
21 Chuckwalla Solar Project, Palen Solar Project, and the
22 whole 200,000 acres of Riverside East Solar Zone.

23 So, specifically, in the EIS, I would like to
24 see addressed: What is the impact of the groundwater
25 beneath the Chuckwalla Valley? How will groundwater be

1 affected in the Pinto Basin beneath Joshua Tree National
2 Park? What will the impact of B.2 surface water like
3 seeps and springs throughout the region?

4 And two other additional comments on this. In
5 the Draft EIS's I have been looking through, there seems
6 to be a real dearth of a meaningful, scientifically-based
7 discussion on desert groundwater recharge rates that
8 consider climate change predictions for our area.
9 Climate change predictions for our area include
10 increasing variability in precipitation and potentially
11 dryer climate.

12 Finally, I would like to see a meaningful,
13 scientifically-based discussion about the amount of
14 available groundwater, which not only takes into
15 consideration the groundwater that's going to be used by
16 this project and other proposed projects, but also by
17 other water being pumped for agricultural industry and
18 habitation. In studies that are referred to in the Draft
19 EIS, it would be great if there was a USGS component to
20 them or USGS research.

21 My final comments are addressed towards
22 endangered species. The Chuckwalla Wildlife Management
23 Area lies directly to the west of this project. It's an
24 area that's part of the Eastern Colorado Recovery Area
25 for the desert tortoise. And many of you know that the

1 desert tortoise is a threatened species. So it's pretty
2 clear that this project will impact that eastern boundary
3 of the Chuckwalla Desert Wildlife Management Area.

4 And one of the things that ought be addressed in
5 the Draft EIS is how the introduction of invasive species
6 through transport via construction will be mitigated.

7 Desert tortoise thrive on native species of plants, and
8 invasive species frequently crowd out native species,
9 making desert habitat a lot worse.

10 What sort of predator control program will be
11 implemented to control the potential increase in
12 predatory ravens? Of course, power lines are good
13 sources of perching. What's going to be done to prevent
14 that?

15 Again, here's another monitoring question. How
16 does the Bureau of Land Management intend to adequately
17 monitor this area?

18 Does the baseline exist for localized
19 populations of desert tortoise right now? I don't know
20 the answer to that, but maybe somebody does.

21 How will we see how this is going to affect the
22 desert tortoise population localized and on a regional
23 level; and how will this affect overall the populations
24 of Mohave desert tortoise on that cumulative effect scale
25 of all those other projects?

1 And, finally, would mitigation such as
2 ecological restoration, construction of vehicle barriers
3 maybe in other parks, maybe in Joshua Tree National Park,
4 to block illegal off-road vehicle use, and education
5 programs about desert tortoise designed to improve
6 people's knowledge of this threatened species be
7 considered for this project?

8 So that was a very long three minutes, but I
9 thank you for letting me have those comments.

10 MS. ELSER: Thank you. Do we have any other
11 speaker cards?

12 MS. MITCHELL: Den Winberry.

13 MR. WINBERRY: Good evening. I wasn't expecting
14 such a large audience. So I didn't prepare, but I do
15 want to carry out a theme that he mentioned.

16 I've lived around here a really long time, and
17 he talked about going up the Key's View and not being
18 able to see Mt. San Jacinto. When I first moved here, on
19 a clear day you could go to Key's View and see Signal
20 Mountain is Mexico. So what you are seeing going on
21 around here, especially in the Coachella Valley, is what
22 I refer to as "creeping crud," where one project isn't a
23 problem; but at some point, there are so many projects,
24 people have forgotten how it used to be.

25 I would like to change themes now and talk about

1 the night sky. Living in the desert, one of our few true
2 natural wonders is the gorgeous night sky; and even after
3 almost 30 years of living here, I never get tired of
4 looking at it. So I'm worried about the lighting
5 problem, and I would like to offer a few suggestions.

6 Not only do you need to minimize the amount of
7 lighting you use, but it's very important that you
8 consider how you light what you light. It should be
9 shielded in such a way that it cannot shine upward, and
10 that reflection upward is very minimal. It's also
11 important that you use many small sources of light rather
12 than big sources of light.

13 The best way to experience that is to be driving
14 down I-15 while the Utah Department of Transportation has
15 four enormous search lights on the other side of the
16 highway. And it's hard to see how that light is being
17 used, because it's all shining into your eyes, as you are
18 going down the road. Now, I am going to guess that most
19 of the light is on the project they are working on, and
20 this is just scattered; but it is a massive effect. I
21 think what they suffer from is they want to try to put up
22 one lighting truck that lights up the whole area, and it
23 would be so much better off if they had four small light
24 trucks, which they distributed and used much smaller
25 lights.

1 Thank you for listening to my comments.

2 MS. ELSER: Thank you.

3 Does anybody else have a speaker card?

4 Anybody want to speak again?

5 (Ms. Elser gave closing comments.)

6 (The Public Scoping Meeting held in Joshua
7 Tree was concluded at 7:13 p.m.)

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1 CERTIFICATE OF DEPOSITION REPORTER

2
3 I, Rhonda K. Goodman, Certified Shorthand
4 Reporter in and for the State of California, Certificate
5 No. 8857, do hereby certify:

6 That the foregoing meeting was taken before me
7 at the time and place therein set forth,

8 That the Public Scoping Meeting was recorded
9 stenographically by me and thereafter transcribed through
10 computer-aided transcription, said transcript being a
11 true copy of my shorthand notes thereof and a true record
12 of the statements given.

13 I do further certify that I am a disinterested
14 person and am in no way interested in the outcome of this
15 action, nor connected with or related to any of the
16 parties herein.

17 IN WITNESS WHEREOF, I have subscribed my name
18 this date: _____.

19
20
21 _____
22 RHONDA K. GOODMAN
23 CSR NO. 8857
24
25

processes of the earth. The USGS does not manage lands or resources. Self-governance tribes may potentially assist the USGS in the data acquisition and analysis components of its activities.

For questions regarding self-governance, contact Monique Fordham, National Tribal Liaison, U.S. Geological Survey, 12201 Sunrise Valley Drive, Mail Stop 911, Reston, VA 20192, telephone 703-648-4437, fax 703-648-6683.

G. Eligible Office of the Special Trustee for American Indians (OST) Programs

The Department of the Interior has responsibility for what may be the largest land trust in the world, approximately 56 million acres. OST oversees the management of Indian trust assets, including income generated from leasing and other commercial activities on Indian trust lands, by maintaining, investing and disbursing Indian trust financial assets, and reporting on these transactions. The mission of the OST is to serve Indian communities by fulfilling Indian fiduciary trust responsibilities. This is to be accomplished through the implementation of a Comprehensive Trust Management Plan (CTM) that is designed to improve trust beneficiary services, ownership information, management of trust fund assets, and self-governance activities.

A tribe operating under self-governance may include the following programs, services, functions, and activities or portions thereof in a funding agreement:

1. *Beneficiary Processes Program* (Individual Indian Money Accounting Technical Functions).

2. *Appraisal Services Program*. Tribes/consortia that currently perform these programs under a self-governance funding agreement with the BIA may negotiate a separate memorandum of understanding (MOU) with OST that outlines the roles and responsibilities for management of these programs.

The MOU between the tribe/consortium and OST outlines the roles and responsibilities for the performance of the OST program by the tribe/consortium. If those roles and responsibilities are already fully articulated in the existing funding agreement with the BIA, an MOU is not necessary. To the extent that the parties desire specific program standards, an MOU will be negotiated between the tribe/consortium and OST, which will be binding on both parties and attached and incorporated into the BIA funding agreement.

If a tribe/consortium decides to assume the operation of an OST

program, the new funding for performing that program will come from OST program dollars. A tribe's newly-assumed operation of the OST program(s) will be reflected in the tribe's funding agreement.

For questions regarding self-governance, contact Lee Frazier, Program Analyst, Office of External Affairs, Office of the Special Trustee for American Indians (MS 5140—MIB), 1849 C Street, NW., Washington, DC 20240-0001, phone: (202) 208-7587, fax: (202) 208-7545.

IV. Programmatic Targets

During Fiscal Year 2012, upon request of a self-governance tribe, each non-BIA bureau will negotiate funding agreements for its eligible programs beyond those already negotiated.

Dated: August 26, 2011.

Ken Salazar,
Secretary.

[FR Doc. 2011-23683 Filed 9-14-11; 8:45 am]

BILLING CODE 4310-W8-P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[L51010000.FX0000.LVRWB09B3350]

Notice of Intent To Prepare an Environmental Impact Statement for the Proposed enXco Desert Harvest Solar Farm Project, Riverside County, CA and Possible Land Use Plan Amendment

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of Intent.

SUMMARY: In compliance with the *National Environmental Policy Act of 1969*, as amended (NEPA), and the *Federal Land Policy and Management Act of 1976*, as amended (FLPMA), the Bureau of Land Management (BLM) Palm Springs South Coast Field Office, Palm Springs, California, intends to prepare an Environmental Impact Statement (EIS), which may include an amendment to the California Desert Conservation Area (CDCA) Plan (1980 as amended), related to enXco's right-of-way (ROW) application for the Desert Harvest Solar Farm Project (Desert Harvest Project), a 150-megawatt (MW) photovoltaic (PV) solar electricity generation project. By this notice the BLM is announcing the beginning of the scoping process to solicit public comments and identify issues related to the EIS.

DATES: This notice initiates the public scoping process for the EIS and possible

plan amendment. Comments on issues may be submitted in writing until October 17, 2011. The date(s) and location(s) of any scoping meetings will be announced at least 15 days in advance through the local news media, newspapers and the BLM Web site at: http://www.blm.gov/ca/st/en/fo/palmsprings/Solar_Projects.html. In order to be included in the Draft EIS, all comments must be received prior to the close of the scoping period or 15 days after the last public meeting, whichever is later. We will provide additional opportunities for public participation upon publication of the Draft EIS.

ADDRESSES: Written comments related to the EIS and possible plan amendment may be submitted by the following methods:

- Web site: <http://www.blm.gov/ca/st/en.html>
- E-mail: CAdesertharvest@blm.gov
- Fax: (951) 697-5299
- Mail: Lynnette Elser, Planning and Environmental Coordinator, BLM California Desert District Office, 22835 Calle San Juan de Los Lagos, Moreno Valley, California 92553

Documents pertinent to these proposals may be examined at the BLM Palm Springs South Coast Field Office, 1201 Bird Center Drive, Palm Springs, California 92262 or at the BLM California Desert District Office at 22835 Calle San Juan de Los Lagos, Moreno Valley, California 92553.

FOR FURTHER INFORMATION CONTACT: For further information and/or to have your name added to our mailing list, contact Lynnette Elser, Planning and Environmental Coordinator; telephone (951) 697-5233; address 22835 Calle San Juan de Los Lagos, Moreno Valley, CA 92553; e-mail lelser@blm.gov.

Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1-800-877-8339 to contact the above individual during normal business hours. This service is available 24 hours a day, 7 days a week, to leave a message or question with the above individual. You will receive a reply during normal business hours.

SUPPLEMENTARY INFORMATION: The applicant, enXco, has requested a right-of-way (ROW) authorization to construct, operate, maintain, and decommission the Desert Harvest Project. The proposed project would be located on BLM-administered lands in Riverside County about 6 miles north of the rural community of Desert Center, California. The overall site layout and generalized land uses would include a substation, an administration building, operations and maintenance facilities, a

transmission line, and temporary construction lay down areas, with a total proposed project footprint of approximately 1,280 acres. The project's 230-kilovolt (kV) generation interconnection transmission line would either be via the First Solar Desert Sunlight 230-kV gen-tie (as a shared facility), or would be located on private and BLM-administered lands and would utilize a planned 230- to 500-kV substation (referred to as the Red Bluff Substation). The Red Bluff Substation would connect the project to the Southern California Edison regional transmission grid. If approved, project construction would begin in late 2013 and would take 9–12 months to complete.

The BLM segregated the public lands located within the Desert Harvest Project's application area from appropriation under the public land and mining laws, but not the mineral leasing or material sales acts, for a period of 25 years for the purpose of protecting potential sites for future solar energy development pursuant to 43 CFR 2091.3–1(e) and 43 CFR 2804.25(e) (76 FR 38416, June 30, 2011).

The purpose of the public scoping process is to determine relevant issues that will influence the scope of the environmental analysis, including alternatives, and guide the process for developing the Draft EIS. At present, the BLM has identified the following preliminary issues: Air quality, biological resources, recreation, cultural resources, water resources, geological resources, special management areas, land use, noise, paleontological resources, public health, socioeconomic, soils, traffic and transportation, and visual resources.

Pursuant to the BLM's CDCA Plan, sites associated with power generation or transmission not identified in the CDCA Plan will be considered through the plan amendment process to determine the suitability of the site for renewable energy development. Since the proposed Desert Harvest Project site was not previously identified as suitable, authorization of the Desert Harvest Project will require amendment of the CDCA Plan. By this notice, the BLM is complying with requirements in 43 CFR 1610.2(c) to notify the public of potential amendments to CDCA Plan predicated on the findings in the EIS. If a land-use-plan amendment is necessary, the BLM will integrate the land-use planning process with the NEPA process for the Desert Harvest Project. A preliminary list of the potential planning criteria that will be used to help guide and define the scope

of the plan amendment process includes:

1. The plan amendments will be completed in compliance with the FLPMA, NEPA, and all other relevant Federal laws, executive orders, and BLM policies;
2. Existing, valid plan decisions will not be changed and any new plan decisions will not conflict with existing plan decisions; and
3. The plan amendment(s) will recognize valid existing rights.

The BLM will utilize and coordinate the NEPA public participation requirements to assist the agency in satisfying the public involvement requirements under Section 106 of the National Historic Preservation Act (NHPA) (16 U.S.C. 470(f)) as provided for in 36 CFR 800.2(d)(3). Information about historic and cultural resources within the area potentially affected by the proposed Desert Harvest Project and potential CDCA Plan amendment will assist the BLM in identifying and evaluating impacts to such resources in the context of both NEPA and Section 106 of the NHPA. Native American tribal consultations will be conducted in accordance with applicable statutes, policies, and directives, and tribal concerns will be given due consideration, including impacts on Indian trust assets. Federal, State, and local agencies, along with tribes and other stakeholders that may be interested or affected by the BLM's decision on this project are invited to participate in the scoping process and, if eligible, may request or be requested by the BLM to participate as a cooperating agency.

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Thomas Pogacnik,

Deputy State Director, Natural Resources.

Authority: 40 CFR 1501.7 and 43 CFR 1610.2

[FR Doc. 2011–23624 Filed 9–14–11; 8:45 am]

BILLING CODE 4310–40–P

DEPARTMENT OF THE INTERIOR

National Park Service

Transfer of Administrative Jurisdiction at or Near Great Sand Dunes National Park

AGENCY: National Park Service, Interior.
ACTION: Notice.

SUMMARY: As required by law, the Secretary of the Interior has transferred to the appropriate agencies jurisdiction over lands acquired for the benefit of Great Sand Dunes National Park, Baca National Wildlife Refuge, and the Rio Grande National Forest.

ADDRESSES: Maps, deeds, and documents related to this transfer may be reviewed at the National Park Service Land Resources Program Center, Intermountain Region, 12795 West Alameda Parkway, Lakewood, Colorado 80225–0287. The approved survey plats and field notes will be available for review at the Colorado State Office of the Bureau of Land Management, 2850 Youngfield Street, Lakewood, Colorado 80215.

FOR FURTHER INFORMATION CONTACT: John Wessels, Director, Intermountain Region, National Park Service, P.O. Box 25287, 12795 West Alameda Parkway, Lakewood, Colorado 80225–0287.

SUPPLEMENTARY INFORMATION: As authorized by section 8(a) of Public Law 106–530 (114 Stat. 2527, 2532), the Secretary of the Interior (Secretary) acquired certain lands and interests in land for the benefit of Great Sand Dunes National Park, Baca National Wildlife Refuge, and the Rio Grande National Forest. Section 8(c) of Public Law 106–530 directed the Secretary to transfer administrative jurisdiction of these lands, as appropriate, to the National Park Service for addition to and administration as part of the Great Sand Dunes National Park; to the United States Fish and Wildlife Service for addition to and administration as part of the Baca National Wildlife Refuge; and to the Secretary of Agriculture, for addition to and administration as part of the Rio Grande National Forest. The transferred lands were depicted on the map having drawing number 140/80/032 and were divided into zones as depicted on an exhibit map having drawing number 140/30,003.

Under the provisions of Section 8(c) of Public Law 106–530, and effective on November 22, 2000, the following transfers were made:

- Administrative jurisdiction of those lands depicted on the exhibit map as Zone A to the United States Fish and Wildlife Service for addition to and

Desert Harvest Solar Project

NOTICE OF PUBLIC SCOPING MEETINGS

enXco Development Corporation has proposed to develop a 150-megawatt solar photovoltaic energy project on approximately 1,200 acres of Bureau of Land Management (BLM)–administered land in Riverside County. The BLM is preparing an Environmental Impact Statement (EIS) and Land Use Plan Amendment pursuant to the National Environmental Policy Act (NEPA) and planning regulations promulgated under the Federal Land Policy and Management Act of 1976 (FLPMA).

Public scoping meetings are being held to solicit public input on the project and the EIS. These meetings are open to the public, and all interested parties are encouraged to attend.

**Monday, October 3, 2011
1pm to 3pm**

University of Riverside,
Palm Desert Graduate Center
75080 Frank Sinatra Drive
Palm Desert, CA 92211

**Monday, October 3, 2011
6pm to 8pm**

Lake Tamarisk Clubhouse
6251 Parkview Drive
Desert Center, CA 92239

**Thursday, October 6, 2011
6pm to 8pm**

Joshua Tree Community Center
6171 Sunburst Street
Joshua Tree, CA 92252

For more information, please contact: **Lynette Elser, NEPA Coordinator**
BLM California Desert District
lelser@blm.gov
(951) 697-5233

Desert Harvest Solar Project

NOTICE OF PUBLIC SCOPING MEETINGS

enXco Development Corporation has proposed to develop a 150-megawatt solar photovoltaic energy project on approximately 1,200 acres of Bureau of Land Management (BLM)–administered land in Riverside County. The BLM is preparing an Environmental Impact Statement (EIS) and Land Use Plan Amendment pursuant to the National Environmental Policy Act (NEPA) and planning regulations promulgated under the Federal Land Policy and Management Act of 1976 (FLPMA).

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For more information, please contact: **Lynette Elser, NEPA Coordinator**
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Bureau of Land Management
c/o Aspen Environmental Group
235 Montgomery Street, Suite 935
San Francisco, CA 94104

Important Notice:
PUBLIC SCOPING MEETINGS
Desert Harvest Solar Project

Bureau of Land Management
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Important Notice:
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Bureau of Land Management

Public Scoping Meeting

Desert Harvest Solar Project EIS

Joshua Tree, CA – October 6, 2011

Note: Before including your address, telephone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment, including your personal identifying information, may be made publicly available at any time. While you may ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so. All submissions from individuals identifying themselves as representatives or officials of organizations or businesses will be made available for public inspection in their entirety.

SIGN-IN SHEET

Presentation starting promptly at 6:30 PM

NAME	AFFILIATION	MAILING ADDRESS, incl ZIP — please print clearly —	PHONE	EMAIL ADDRESS — please print clearly —	Do you want to be on our Mailing List?
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Bureau of Land Management

Public Scoping Meeting

Desert Harvest Solar Project EIS

Lake Tamarisk, CA – October 3, 2011

SIGN-IN SHEET

Presentation starting promptly at 6:30 PM

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Bureau of Land Management

Public Scoping Meeting

Desert Harvest Solar Project EIS

Lake Tamarisk, CA – October 3, 2011

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SIGN-IN SHEET

Presentation starting promptly at 6:30 PM

NAME	AFFILIATION	MAILING ADDRESS, incl ZIP — please print clearly —	PHONE	EMAIL ADDRESS — please print clearly —	Do you want to be on our Mailing List?
Tammy Edge		PO BOX 578 Desert Center CA 92239	760 777 3935	tammie.dye @gmail.com	yes
Bryan Caster	Desert Center Chamber of Commerce	PO BOX 53 Desert Center CA 92239	760 777 3996	bryncaster @gmail.com	yes
Dawn Pettigall		P.O. Box 605 Desert Center Ca	760 227- 3061	—	yes
Joe & Gary Fleming	LAKE TAMARISK RV PARK B.O.D	P.O. Box 31 Desert Center CA	425- 346 6669	MRS FUNGUS53 @GMAIL.COM	yes
K KAUFMAN	DESERT SUN	750 N GENE AUTRY TR TALM SPRINGS	760- 776-4622	k.kaufmann@ thedesertsun.com	yes
MARVEL CLO		PO BOX 306 Desert Center CA 92239	760- 227- 3215		yes



Bureau of Land Management

Public Scoping Meeting

Desert Harvest Solar Project EIS

Lake Tamarisk, CA – October 3, 2011

SIGN-IN SHEET

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NAME	AFFILIATION	MAILING ADDRESS, incl ZIP — please print clearly —	PHONE	EMAIL ADDRESS — please print clearly —	Do you want to be on our Mailing List?
G. Plance	n/a	43980 Shadow Way Desert Center CA 92239 (PO Box 763)	709 660-9742	greg@tnt@ yahoo.com	✓
Steve H. Jones		PO Box 246 Desert Center CA 92239	760-578-0969	SteveJ8460 @earthlink.net	✓
Maryd Gurney			818-810-1740	114d@comcast.net	✓
Donald C. H. Fort Mojave		2935 K. Rouns Circle Mohave Valley AZ 86440	928-346-1081		yes
Vickie Jones		PO Box 246 Desert Center, CA 92239	760-831 3608		
Julie Smiley		PO Box 473 Desert Center	760 309 6213	juliesmiley-20 @hotmail.com	yes



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NAME	AFFILIATION	MAILING ADDRESS, incl ZIP — please print clearly —	PHONE	EMAIL ADDRESS — please print clearly —	Do you want to be on our Mailing List?
Phillip Smith	CRIT	947 Smith Rd Needles, CA 92363	760-326-2678	—	Yes
Chelsea Minor	observe	1201 K St. Sacramento, CA	916-498-7733	cmminor@ka-pm.com	Yes
Styler Frazier	observe	Phoe Sue Desert Center CA	623-310-6589	stylerfrazier@earthlink.net	No
Rachel Woodard	observe	POB 251 Desert Center 92239		rachwoodard@earthlink.net	Yes
DONNA CHARPIS	DESERT PROTECTION SOCIETY	PO Box 397 Desert Center CA 92239	(760) 392-4722	donna@earthlink.net	Yes



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NAME	AFFILIATION	MAILING ADDRESS, incl ZIP — please print clearly —	PHONE	EMAIL ADDRESS — please print clearly —	Do you want to be on our Mailing List?
Orin Castor	OBserve	~~Orin Castor~~ @yahoo.com		Orin Castor @yahoo.com	
Glenn Castor	Observe-Resident	P.O. Box 502 Desert Center CA 92239	760-861-0437	Glenn.Castor@gmail.com	YES



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Public Scoping Meeting

Desert Harvest Solar Project EIS

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NAME	AFFILIATION	MAILING ADDRESS, incl ZIP — please print clearly —	PHONE	EMAIL ADDRESS — please print clearly —	Do you want to be on our Mailing List?
Timothy W Anderson	Desert Center Grape Farm	P.O. Box 436 Desert Center	227 3188	DCVine2 @MSN.COM	OK
Mickie Castro	LAKE TAMARISK Resident	P.O. Box 563 Desert Center	760 902 7986		
GEO DONALDSON	CHAMBERLAIN OF CONCRETE	PO 7111 DESERT CENTER	227- 3290	YUCCA e REACTORS (@EMAIL.COM)	YES

Speaker Registration Card

(Please Print)

Name: Lawrence J. Lefebvre

Affiliation (if any): Fort Mohave Tribe

Address: 2935 Kronis Circle Mohave Valley AZ

8644

City, State, and Zip: _____

Phone: 928-346-1081

Email: _____

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Speaker Registration Card

(Please Print)

Name: Alfreda A. Figueroa

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(Please Print)

Name: Lloyd Gunn

Affiliation (if any): Society for conservation of bighorn sheep

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City, State, and Zip: _____

Phone: _____

Email: llydgunn@verizon.net

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Speaker Registration Card

(Please Print)

Name: Phillip Smith

Affiliation (if any): ERIT

Address: 997 Smith Rd

City, State, and Zip: Needles, CA 92363

Phone: (760) 326-2678

Email: -

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Speaker Registration Card

(Please Print)

Name: DONNA CHARPENT

Affiliation (if any): Desert Protection Society (formerly CITIZENS FOR THE CRICKWALK VALLEY)

Address: PO Box 397

City, State, and Zip: Desert Center CA 92239

Phone: 760-392-4722

Email: bronna@earthlink.net

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Speaker Registration Card

(Please Print)

Name: Renee W. Caster

Affiliation (if any): Desert Center Area Chamber of Commerce

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City, State, and Zip: Desert Center CA 92239

Phone: 760 485-8060

Email: renee.w.caster@gmail.com

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Speaker Registration Card

(Please Print)

Name: Larry Charpiel

Affiliation (if any): Joshua Farmer Vice. pres. Desert project Society

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City, State, and Zip: Desert Center Ca. 92239

Phone: 760-392-4722

Email: _____

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Speaker Registration Card

(Please Print)

Name: Johnny Coon

Affiliation (if any): _____

Address: P.O. Box 436

City, State, and Zip: Desert Center CA. 92239

Phone: 760 227-3188

Email: DCVINE2@MSN.COM

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Speaker Registration Card

(Please Print)

Name: GARY FLEMING

Affiliation (if any): LAKE TAMARISK DESERT RESORT

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City, State, and Zip: DC CA 92239

Phone: 425-346-6669

Email: MRFUNGUS56@GMAIL.COM

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Speaker Registration Card

(Please Print)

Name: HAROLD FOSTER

Affiliation (if any): RESIDENT

Address: SHAST DR PO BOX 459

City, State, and Zip: DC CA 92239

Phone: 760-567-0037

Email: hfoosterdesert+homes@GMAIL.COM

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Public Scoping Meeting

Desert Harvest Solar Project EIS

Palm Desert, CA – October 3, 2011

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SIGN-IN SHEET

Presentation starting promptly at 1:30 PM

NAME	AFFILIATION	MAILING ADDRESS, incl ZIP — please print clearly —	PHONE	EMAIL ADDRESS — please print clearly —	Do you want to be on our Mailing List?
Rebecca Forbes	CA/HANS	464 West 4th St. MS-122 San Bernardino, CA 92401	909 388-7139	rebecca_forbes@del.ca.gov	yes
ELIZABETH MEYERHOFF	HMCC for Eagle Crest Energy	42455 Connecticut Palm Desert CA 92211	760 449-7659	elizabeth@ harvey- meyerhoff.com	yes
Patricia Pinon	La Cuna de Aztlán Sacred Sites Protection Circle	424 N. Carlton Blythe Ct	760 922-6422	patricina@ msn.com	
Ollie Beyl		P.O. Box 1282 PS CA 92263	760 534-4119	ollie.beyl@ wia.gov	Yes
Send mail → PHILIP LUONG	Lakeview Ranch	P.O. BOX 1751 MONTEREY PARK, CA 91754	(213) 810-1111	LakeviewRANCH @YAHOO.COM	yes



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Public Scoping Meeting

Desert Harvest Solar Project EIS

Palm Desert, CA – October 3, 2011

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SIGN-IN SHEET

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NAME	AFFILIATION	MAILING ADDRESS, incl ZIP — please print clearly —	PHONE	EMAIL ADDRESS — please print clearly —	Do you want to be on our Mailing List?
B-card Ulrich Sauerbrey	Consultant	74943 Live Oak St Indian Wells CA 92210	760 610 9410	ulrichs@uslandlink.com	~~No~~ Yes

USLANDLINK

Ulrich J. Sauerbrey
president

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land | project management and engineering

Speaker Registration Card

(Please Print)

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Patricia Pinón

Affiliation (if any):

La Cuna de Aztlan Sacred Sites Protection
Circle

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424 N. Carlton

City, State, and Zip:

Blythe, CA

Phone:

760 922-6422

Email:

paticuna@msn.com

☐ Joshua Tree

☐ Lake Tamarisk

☒ Palm Desert

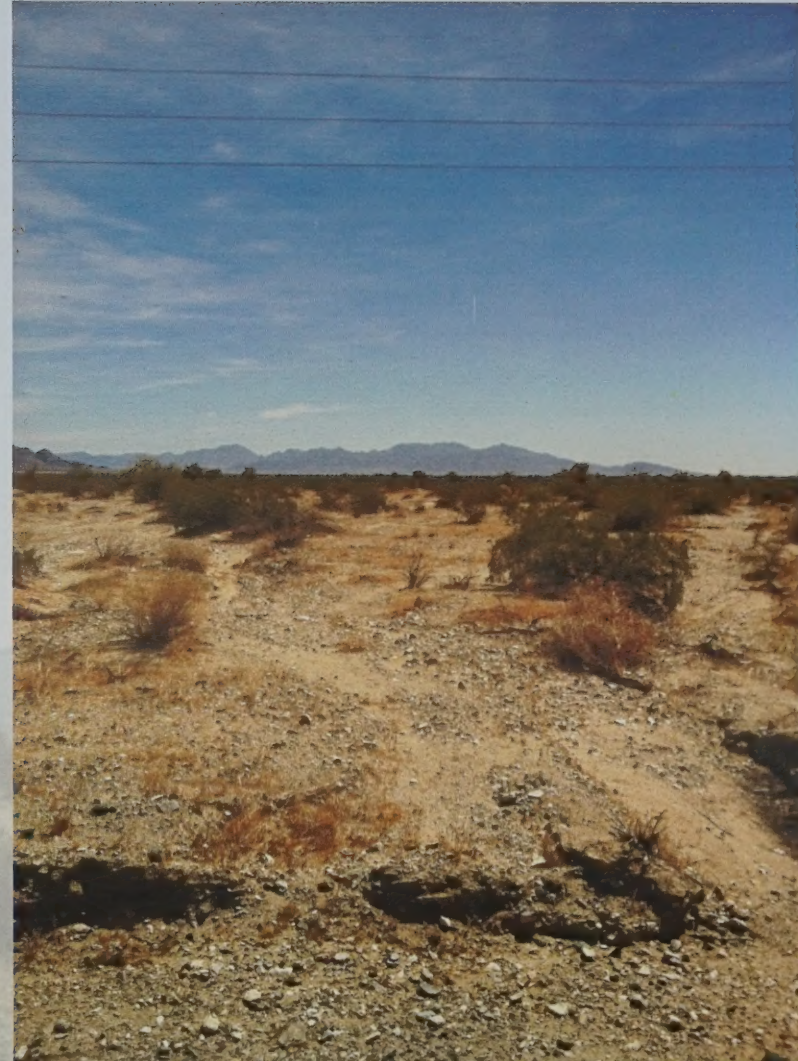
Thank you for coming to the **enXco Desert Harvest Solar Project EIS Public Scoping Meetings**

- **Please...**
 - Sign in at the table near the entrance
 - Fill out and turn in speaker cards to make verbal comments
 - Pick up comment cards to make written comments
 - Drop off at the end of the meeting, or
 - Mail or fax the card later
 - **Scoping Period Ends October 15, 2011**



Agenda

- First 30 minutes **Open House**
- Next 30 minutes **Presentation**
- Last 1 hour **Public Comments**



Who Are We?

- **Bureau of Land Management (BLM)**
 - **Lynnette Elser**, Project Manager and NEPA Coordinator, California Desert District
- **enXco Development**
 - **Ian Black**, Project Manager
- **Aspen Environmental Group**
 - **Marisa Mitchell**, third party consultant to BLM



Why Are We Here?

The Purpose of Public Scoping

- **Give a project overview**
- **Solicit public feedback**
- **Use this feedback to write the Draft EIS**

enXco Desert Harvest Solar Project

The Bureau of Land Management (BLM) presents:

Public Scoping Meetings *for the* **EIS/Plan Amendment**

MEETING LOCATIONS

Monday, October 3, 2011

1pm to 3pm

University of Riverside, Palm
Desert Graduate Center

75080 Frank Sinatra Drive

Palm Desert, CA 92211

Monday, October 3, 2011

6pm to 8pm

Lake Tamarisk Clubhouse

26251 Parkview Drive

Desert Center, CA 92239

Thursday, October 6, 2011

6pm to 8pm

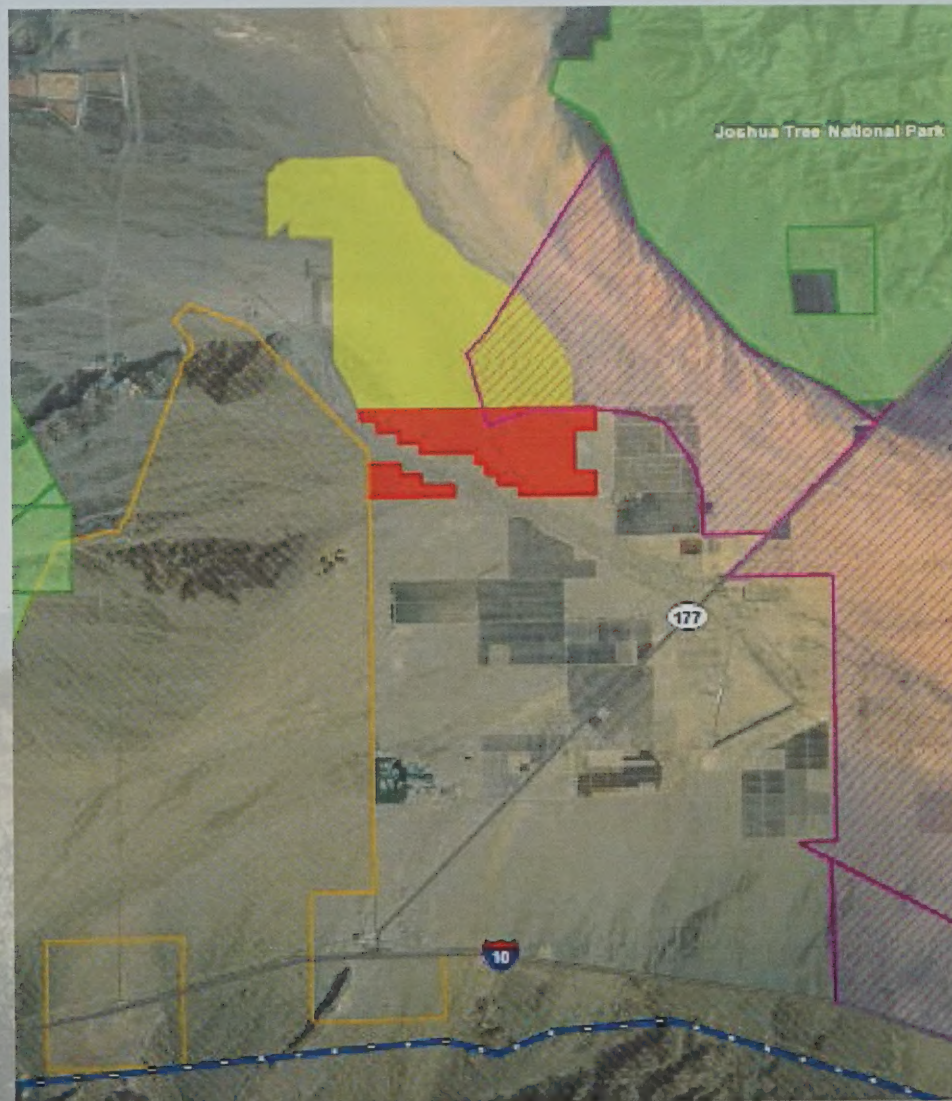
Joshua Tree Community
Center

6171 Sunburst Street

Joshua Tree, CA 92252

Project Overview

BLM's Purpose and Need: Responding to an application



Project Overview

Project Location

- 1,209 acres on BLM land
- North of Desert Center
- South of First Solar's Desert Sunlight Project (under construction)

Project Features

- 1,200 acre solar field
- On-site electrical substation
- Internal access roads
- Security fencing and lighting



Construction Process

- Constructed in 2 phases
- 18 months of total construction time

Project Gen-Tie

- Considering shared or project-specific gen-tie

Environmental Review

- The Bureau of Land Management (BLM) is the NEPA lead agency
- The National Parks Service is a Cooperating Agency
- Riverside County is the CEQA Lead Agency



Agency Actions Under Consideration

- **BLM:**
 - Right-of-Way Grant
 - Amendment to California Desert Conservation Area Plan (CDCA)
- **Riverside County and California Dept of Fish and Game may use Final EIS to issue permits**



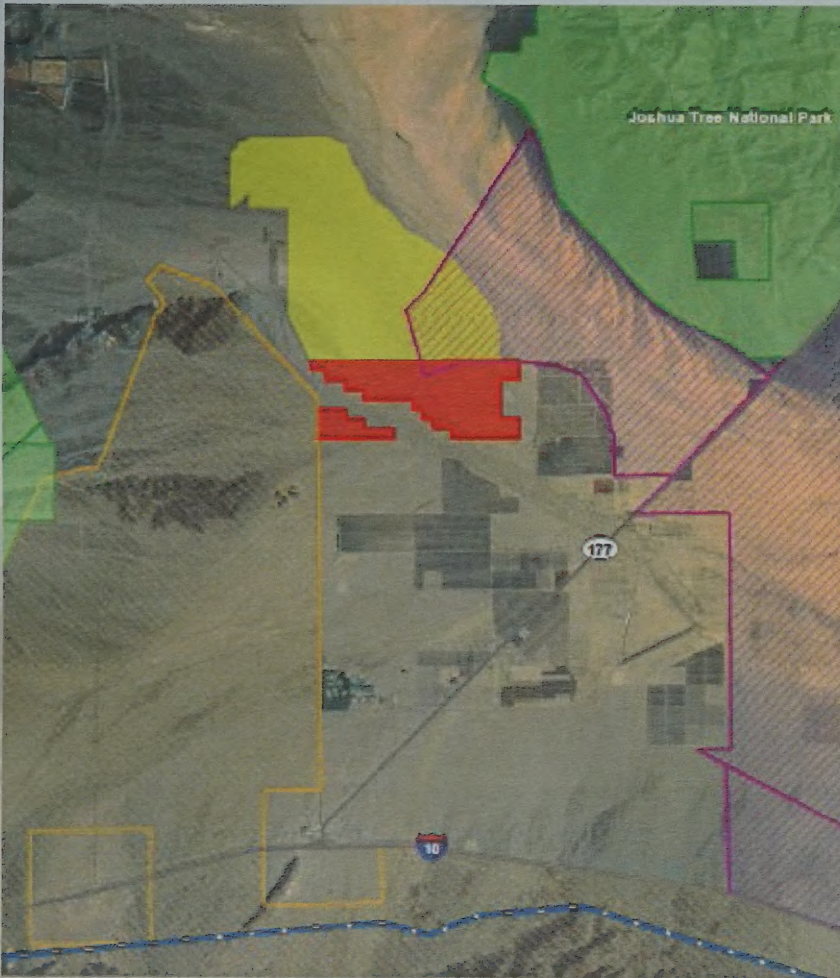
NEPA Objectives

- Identify key issues to focus analysis
- Identify reasonable alternatives for analysis
- Present environmental impacts of proposed project and alternatives
- Identify ways to avoid or reduce environmental impacts
- Inform the agency decision-making process
- Encourage public participation

Preparation of the EIS

(Six Stages)

1. **Notice of Intent** (September 15, 2011)
2. **Scoping Period** (ends October 15, 2011)
3. **Draft EIS**
4. **Draft EIS Public Comment Period** (90 days; public review planned for Winter of 2011)
5. **Final EIS** (Summer of 2012)
6. **Record of Decision** (Summer of 2012)



Opportunities for Public Comment During the Review Process Under NEPA

- During Scoping
- After the Release of the Draft EIS



Where to Send Written Comments

- **Scoping comments will be accepted through October 15, 2011**
 - Send comments to:
BLM California Desert District Office
attn: Lynnette Elser, NEPA Coordinator,
22835 Calle San Juan De Los Lagos
Moreno Valley, CA 92553
 - Submit by email to: CAdesertharvest@blm.gov
 - Arrangements can be made for those with special needs to comment – please talk with Marisa Mitchell after this presentation

BLM Documents are available at:

www.blm.gov/ca/st/en.html

Thank you!

Public Comment Period

- Fill out a speaker card
- Please limit comments to 3 minutes
- Your comments will be recorded by a court reporter



Why

- **FLPMA Section 103(c)**
 - Management of public lands for multiple use, incl. needs of future generations
- **Executive Order 13212 (2001)**
 - Federal agencies act expediently to increase environmentally sound energy
- **Energy Policy Act (2005)**
 - Interior Dept. goal to approve 10,000 MW renewable energy on public lands by 2015
- **Secretarial Order 3285A1 (2010)**
 - Prioritizes renewable energy development as a priority for Dept. of Interior

Desert Harvest Solar Farm Project

BIOLOGICAL RESOURCES

Desert Tortoise

The project site is habitat for desert tortoise. Surveys of the project site found:

- No living tortoises on site
- Some tortoise sign



Golden Eagle

The project site is foraging habitat for the golden eagle. Surveys of the project site found:

- No active nests within a 10-mile radius of the project site

Mojave Fringe-Toed Lizard

Mojave fringe-toed lizard habitat occurs in the Chuckwalla Valley. Surveys of the project site found:

- No habitat for Mojave fringe-toed lizard on the project site



Desert Kit Fox and American Badger

Surveys of the project site found:

- Desert kit fox and American badgers occur on site

Desert Harvest Solar Farm Project

PROJECT OVERVIEW



Project Location

- 1,209 acres on BLM land
- North of Desert Center
- South of First Solar's Desert Sunlight Project (under construction)

Project Features

- 1,200-acre solar field
- Ono-site electrical substation
- Internal access roads
- Security fencing and lighting

Construction Process

- Constructed in 2 phases
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Project Gen-Tie

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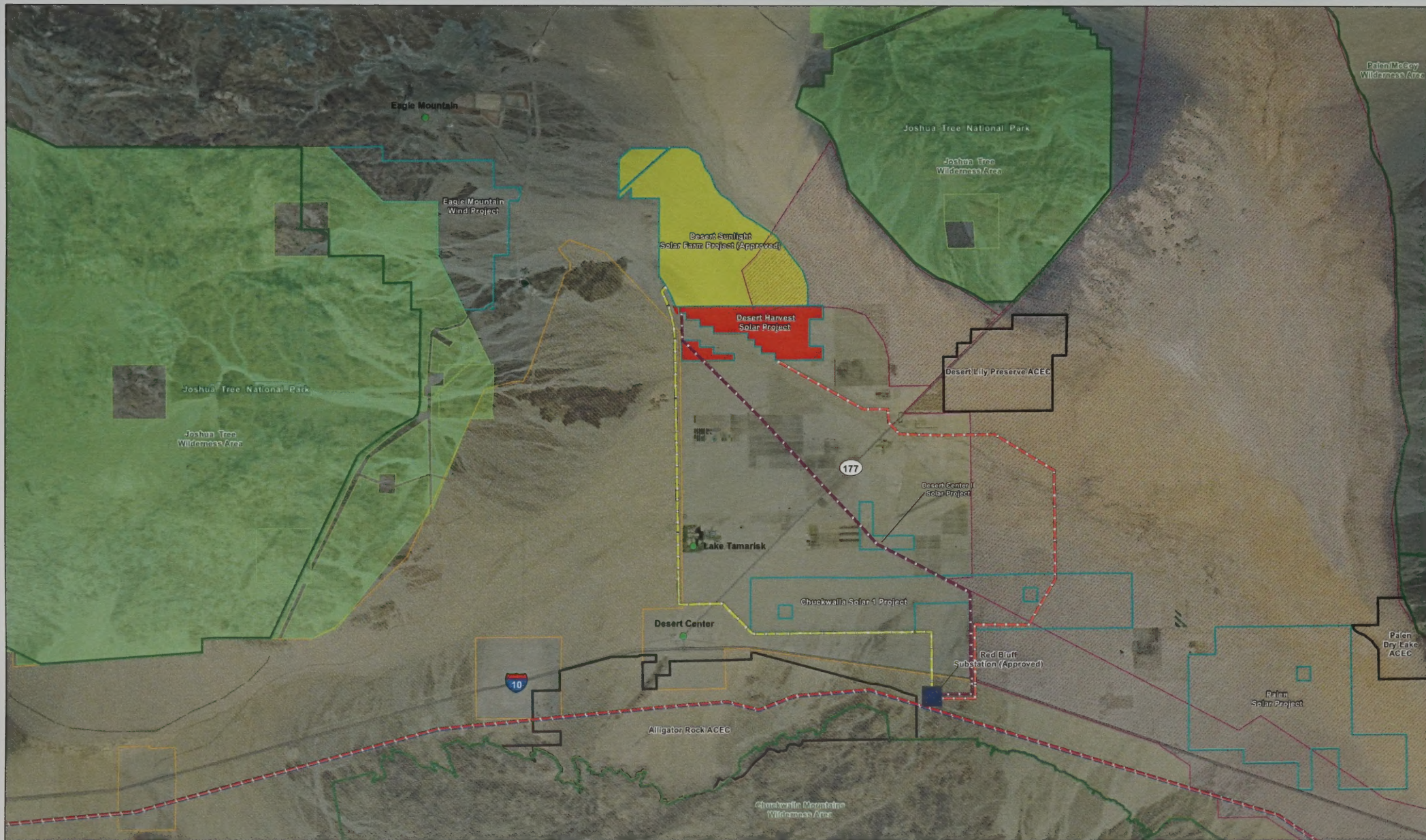
Desert Harvest Solar Farm Project

CULTURAL RESOURCES

- Class III cultural resources surveys complete
- Cultural Resources Report is under preparation
- enXco has carried out informal meetings with tribes
- Formal tribal consultation will be carried out as a part of the NEPA process



Photo: George Kline, BLM (Artifact NOT located on the project site)



0 1.5 3 Miles

- | | | |
|------------------------------|--|---|
| Gen-Tie Alternatives B and C | Desert Harvest Solar Project | Wilderness Area |
| Gen-Tie Alternative D | Joshua Tree National Park | BLM Area of Critical Environmental Concern (ACEC) |
| Gen-Tie Alternative E | Palen-Ford Wildlife Habitat Management Area (2004) | Proposed Renewable Energy Projects |
| DPV1 500 kV Line (Approved) | Chuckwalla Desert Wildlife Management Area (2004) | Red Bluff Substation (Approved) |
| DPV2 500 kV Line (Approved) | | |

Desert Harvest EIS Scoping Meetings Map of Project Vicinity

Appendix C.1

2010 Focused Survey for Desert Tortoise
(*Gopherus agassizii*)

Desert Harvest

2010 Focused Survey for Desert Tortoise (*Gopherus agassizii*)

Riverside County, California
Township 4 South, Range 15 East, Sections 25, 26 & 27
USGS 7.5' Victory Pass & East of Victory Pass Quadrangles

Prepared for:

Aspen Environmental Group

235 Montgomery Street, No. 935

San Francisco, CA 94104

(415) 955-4775 x 203

Contact: Susan V. Lee, Vice President

SLee@aspeneg.com

Prepared by:

AMEC Earth & Environmental, Inc.

3120 Chicago Avenue, Suite 110

Riverside, CA 92507

(951) 369-8060

(FAX) 369-8035

Principal Investigator:

Michael D. Wilcox

Wildlife Biologist/Ecologist

michael.wilcox@amec.com

AMEC Job # 1055400425

Report Date: 18 April 2011

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Desert Harvest

2010 Focused Survey for Desert Tortoise (*Gopherus agassizii*) Report

EXECUTIVE SUMMARY

A focused survey for the desert tortoise (*Gopherus agassizii*) was conducted by AMEC Earth & Environmental, Inc. (AMEC) between 12-17 April 2010 for the proposed Desert Harvest project (project), located in unincorporated eastern Riverside County, California. The 1,057-acre project site, which is located on lands administered by the Bureau of Land Management (BLM), is proposed to be the location of a 100-150 mega-watt photovoltaic panel solar power plant. This study, contracted to AMEC by Aspen Environmental Group (Aspen), presents the results of AMEC's field surveys on the proposed project site and in the site's zone of influence (ZOI). An additional 270-acre parcel was added to the project site, after completion of the 2010 desert tortoise survey. This focused survey report addresses only the larger eastern parcel; the southwestern 270-acre parcel area was not included in the scope of this study.

The project site is located within the Colorado Desert Recovery Unit as described in the Draft Revised Desert Tortoise Recovery Plan for the Mojave Population of the Desert Tortoise (*Gopherus agassizii*) (USFWS 2008) but not within designated critical habitat for the desert tortoise. The nearest designated critical habitat for the desert tortoise is the Chuckwalla Unit located approximately 1 mile southwest of the project site. A portion of the project site, the western-most 113.3 acres of the (currently unsurveyed) southwestern 270-acre parcel, however is within the Chuckwalla Desert Wildlife Management Area (DWMA) for the desert tortoise (USFWS 2008).

A literature search was conducted to identify special-status biological resources known from the vicinity of the project site. The focused survey for the desert tortoise was conducted in accordance with the currently accepted survey protocol "Preparing For Any Action That May Occur Within the Range of the Mojave Desert Tortoise" (USFWS 2010).

No live desert tortoises or recent sign were observed on the project site or within the ZOI. However, desert tortoises have the potential to occupy the site. Two desert tortoise burrows, designated as class 2 (good condition) and class 3 (deteriorated condition), were observed onsite. Neither burrow exhibited any evidence of recent use or corroborating sign. Several class 5 (disarticulated and scattered) bone fragments, possibly of tortoise origin, were also found within one area of the project site. A road-killed desert tortoise was observed at the Eagle Mountain off ramp on east-bound Interstate 10 (I-10) approximately 7.5 miles southwest of the site (see Figure 2).

The desert tortoise occurs onsite and in the vicinity, evident by the presence of the two burrows, the road-killed tortoise observed en-route to the site, and possibly the three small bone fragments. These results are consistent with what is already known about desert tortoise

occurrence this region of the Colorado Desert: desert tortoises occur in relatively low numbers in this part of their geographic range. The US Fish and Wildlife Service (USFWS) desert tortoise survey guidelines consider the presence of any tortoise sign (scat, burrows, and carcasses) to indicate presence of desert tortoise (USFWS 2010).

Evidence of one other special-status wildlife species, the American badger (*Taxidea taxus*), was found onsite during the surveys, as well. The American badger is designated as a California Species of Special Concern (CSSC) by the California Department of Fish and Game (CDFG).

There is potential for a variety other special-status wildlife species to occur onsite and in the vicinity, based on CNDDDB records, geographic range and presence of suitable habitat. These include burrowing owl (*Athene cunicularia*), prairie falcon (*Falco mexicanus*), Bendire's thrasher (*Toxostoma bendirei*), Le Conte's thrasher (*Toxostoma lecontei*), Nelson's bighorn sheep (*Ovis canadensis nelsoni*), and California leaf-nosed bat (*Macrotus californicus*). No further analysis of potential occurrence of these species or other biological resources is provided in this report. A separate, comprehensive biological assessment for this project, should address these species, along with other special-status resources (e.g., nesting birds protected by the Migratory Bird Treaty Act, jurisdictional waters of the California and United States).

Desert Harvest

2010 Focused Survey for Desert Tortoise (*Gopherus agassizii*) Report

1.0 INTRODUCTION

AMEC Earth & Environmental, Inc. (AMEC) was contracted by Aspen Environmental Group (Aspen) to conduct a focused survey for desert tortoise (*Gopherus agassizii*) in spring 2010 for the proposed Desert Harvest photovoltaic solar energy project (herein "project" or "action area") located in unincorporated Riverside County California. The proposed project consists of the development of a 100-150 mega-watt photovoltaic panel solar power plant. The objective of this study is to determine the presence or absence of the desert tortoise on, and within the zone of influence of, the project site.

The Mojave population of the desert tortoise, which includes tortoises occurring in California's Colorado Desert, is federally and state listed as threatened. Development projects proposed within the geographic range of desert tortoise require an assessment of site's habitat suitability and focused surveys, where suitable habitat is present, in order to determine the onsite status of the species. Impacts to desert tortoise require both federal and state permitting as well as incorporation of impact avoidance (where possible), minimization, and mitigation measures into project design.

2.0 PROJECT LOCATION& HABITAT DESCRIPTION

The Desert Harvest project site is located on public lands administered by the Bureau of Land Management (BLM) in unincorporated Riverside County, approximately 6 miles north of Desert Center, California (Township 4 South, Range 15 East, Sections 25, 26, 27, USGS 7.5' *Victory Pass & East of Victory Pass* quadrangles)(see Figure 1). The applicant, enXco Development Corporation (enXco) proposes to build a 100-150 mega-watt (MW) solar plant incorporating thin-film photovoltaic panels (enXco 2010). The serialized application number assigned by the BLM for this project is 049491. The Right of Way Application consists of two non-contiguous parcels (see Figures 2 and 3). The eastern parcel is 1,057 acres and the southwestern parcel is 270 acres. This report addresses the larger, eastern parcel only.

The project site is currently vacant, undeveloped, natural open space. Dominant vegetation communities occurring onsite include Creosote Bush-White Burr Sage Scrub and Smoke Tree Woodland (Sawyer et al. 2009). The Creosote Bush-White Burr Sage Scrub vegetation community is the equivalent to the "Sonoran Creosote Bush Scrub" and the Smoke Tree Woodland is the equivalent to the "Desert Dry Wash Woodland" described by Holland (1986).

The Creosote Bush-White Burr Sage Scrub vegetation community is the most widespread vegetation type in the Colorado Desert. This vegetation community is characterized by low shrub species diversity and the wide spacing of the shrubs, usually with bare ground between, and is comprised of the codominant species creosote bush (*Larrea tridentata*) and white bursage (*Ambrosia dumosa*). Other shrubs occurring in smaller numbers include cheesebush (*Ambrosia salsola*), brittlebush (*Encelia farinosa*), pencil cholla (*Cylindropuntia ramosissima*),

beavertail cactus (*Opuntia basilaris*), California fagonia (*Fagonia laevis*), and sticky fagonia (*Fagonia pachyacantha*). Many species of seasonal annuals, including desert sunflower (*Geraea canescens*), desert dandelion (*Malacothrix glabrata*), and desert four-spot (*Eremalche rotundifolia*), were observed onsite. The Creosote Bush-White Burr Sage Scrub community also includes small patches of desert pavement with very sparse vegetative cover composed primarily of devil's spineflower (*Chorizanthe rigida*), kidneyleaf buckwheat (*Eriogonum reniforme*), and Emory's rock daisy (*Perityle emoryi*). Desert pavement are areas where the desert surfaces are covered with closely packed, interlocking rocks and pebbles, which serves as a barrier to many plants germinating and taking root.

The Smoke Tree Woodland occurs throughout the onsite dry washes and is dominated by ironwood (*Olneya tesota*) and smoketree (*Psoralea argemone*), with blue palo verde (*Parkinsonia florida*), and cat claw acacia (*Acacia greggii*) occurring in lesser amounts. Smoke Tree Woodlands are characterized by the presence of arborescent, often spiny, shrubs generally associated with washes or alluvial deposits adjacent to washes. Plant species in desert wash habitats are generally taller, up to approximately 9m (30 ft) in height, and denser than those of surrounding desert habitats, such as the Creosote Bush-White Burr Sage Scrub on the project site, with the height of the wash vegetation proportional to the size of the arroyo (Mayer 1988). The Smoke Tree Woodland on the project site fits this description, with the ironwood, smoketree, and palo verde exceeding both the height and density of the surrounding Creosote Bush-White Burr Sage Scrub vegetation community, with many of the individual shrubs of the Smoke Tree Woodland located along the low, vertically-incised banks. This habitat supports a variety of wildlife species, essentially the same species as those occupying the Creosote Bush-White Burr Sage Scrub.

Ground surface visibility is greater than 80% (enXco 2010). Site topography is mostly flat with elevations ranging from 583 to 675 feet above mean sea level. Soils vary from sandy alluvium to hard packed desert pavement. Onsite ephemeral drainages flow southeasterly towards Desert Center at a slope of less than 1% (enXco 2010).

Surrounding land uses include undeveloped natural open space to the west, north and south. Some of the lands to the southeast of the site have been converted to agricultural uses in the past (jojoba [*Simmondsia chinensis*] farming) and appear to be presently abandoned.

The project site is located within the Colorado Desert Recovery Unit as described in the Draft Revised Desert Tortoise Recovery Plan for the Mojave Population of the Desert Tortoise (*Gopherus agassizii*), but not within designated critical habitat for the desert tortoise (USFWS 2008). The closest designated critical habitat, the Chuckwalla Unit, is located approximately 1 mile southwest of the project site. A portion of the project site, the western-most 113.3 acres of the (currently unsurveyed) southwestern 270-acre parcel, is within the Chuckwalla Desert Wildlife Management Area (DWMA) for the desert tortoise (USFWS 2008)(see Figure 3).

Desert tortoise density estimates for the 1994-designated Eastern Colorado Recovery Unit in which the site is located ranged from 10.80 tortoises per km² in 2001 to 6.38 tortoises per km² in 2005 (USFWS 2008).

3.0 METHODS

3.1 Field Survey

A literature search was conducted to identify special-status biological resources known from the vicinity of the project site. In the context of this report, and for the purpose of this assessment, vicinity is defined as areas within an approximate 10-mile radius of the site. The literature search included a review of the following documents:

- California Department of Fish and Game's (CDFG) California Natural Diversity Database (CNDDDB) version 3.1.1 RAREFIND application (CDFG 2010)
- CNDDDB's Special Animals List (CNDDDB 2009)
- USGS 7.5' *Victory Pass, East of Victory Pass, Desert Center and Corn Spring* California quadrangles

The focused survey for the desert tortoise was conducted over 100% of the project site and within the project's buffer zone of Influence (ZOI) in accordance with the currently accepted survey protocol "Preparing for any Action that may Occur within the Range of the Mojave Desert Tortoise" (USFWS 2010) (see Table 1). Desert tortoise surveys were conducted on April 12 through 17, 2010 by biologists Jim Boone, PhD., Stephen Ferrand, William Ferrand, Alex Heindl, Nathan T. Moorhatch, Michael Omana, Dennis Strong and Michael D. Wilcox. AMEC botanist Shari Norton conducted an onsite focused survey for rare plant species concurrent with the focused desert tortoise surveys (see Table 1 below).

Belt transects, spaced 10 meters (m) apart, were systematically walked over the 1,057-acre project site. When observed, desert tortoise sign (i.e., live tortoises, tracks, burrows, scat, carcasses and bone fragments) was documented on appropriate survey forms (USFWS 2010 Desert Tortoise Pre-Project Survey Data Sheet). Desert tortoise sign observed was photographed with digital cameras and mapped using handheld GPS equipment. Where present, desert woodrat (*Neotoma lepida*) middens and animal burrows of various kinds (e.g., desert kit fox, coyote, badger, ground squirrel, kangaroo rat, burrowing owl, etc.) were carefully inspected for presence of desert tortoises and their sign. Parallel belt transects were also walked within the ZOI around the perimeter of the site (where access was granted) at intervals of 200, 400 and 600 m.

General weather conditions were recorded at the start and end of each survey. Temperatures and time of day were recorded at the start and end of each transect. Weather conditions during the surveys varied from gusty winds and light rain to sunny and calm (see Table 1). Temperatures ranged from 56-95 degrees Fahrenheit (F). All wildlife detected was recorded on field forms and/or notes and a list of all species observed is included in Appendix 3.

Table 1: Survey Conditions and Data.

Date	Start/End	Personnel	Temperatures (F)	Wind (mph)	Cloud cover (%)
12 Apr 10	0854-1705	JB, BF, SF, MO, DS, AH, NM, SN	56-77	3-15	~ 20-90, drizzle
13 Apr 10	0816-1557	JB, BF, SF, MO, DS, AH, NM, SN	58-80	0-7	0
14 Apr 10	0843-1435	JB, BF, SF, MO, DS, AH, NM, SN	67-87	0-7	0
15 Apr 10	0751-1532	JB, SF, MO, DS, AH, SN, MW	68-88	0-7	0
16 Apr 10	0850-1727	JB, BF, SF, MO, DS, AH, SN, MW	77-95	0-9	0
17 Apr 10	0712-1141	JB, BF, SF, MO, DS, AH,	68-88	3-10	0

Key to personnel: JB (Jim Boone), BF (Bill Ferrand), SF (Stephen Ferrand), MO (Michael Omana), DS (Dennis Strong), AH (Alex Heindl), NM (Nathan Moorhatch), SN (Shari Norton), MW (Michael Wilcox)

4.0 RESULTS

The CNDDDB (2010) reports records of six special-status wildlife species in the vicinity of the project site. These include the desert tortoise, prairie falcon (*Falco mexicanus*), Bendire's thrasher (*Toxostoma bendirei*), Le Conte's thrasher (*Toxostoma lecontei*), Nelson's bighorn sheep (*Ovis canadensis nelsoni*), and California leaf-nosed bat (*Macrotus californicus*).

No live desert tortoises, active burrows, scat, tracks/prints, drinking depressions, courtship rings, or complete carcasses were observed on the project site or within the ZOI. Two desert tortoise burrows were found onsite. These included one class 2 and one class 3, definite desert tortoise burrows, in good condition but without evidence of recent use and degraded condition respectively (see Figure 2). Table 2 provides additional details regarding desert tortoise sign classifications. Three class 5 bone fragments, possibly of tortoise origin, were also found within one area and may have been washed onto the site from upstream. The carapace and plastron (upper and lower shell) of the tortoise's anatomy are made up of fused plates of bone with scutes (keratin layers) attached. These plates of bone and scutes typically exhibit characteristic sutures or lines where they are fused to the adjoining plates or scutes. The scutes also exhibit growth rings or annuli. The bone fragments found onsite did not exhibit obvious sutures or lines typical of tortoise carapace or plastron bone, but because of their shape and size, which are both consistent with tortoise bone, they are considered by AMEC to be potential tortoise remains (see Figure 2 and Photos 7-8). Due to their old age, highly weathered surfaces and edges, and the small size of the fragments, assigning them definitively to tortoise was not possible. No scutes were observed. Although considerably offsite, a road-killed desert tortoise was observed at the Eagle Mountain off ramp of east-bound Interstate 10 (I-10) approximately

7.5 miles southwest of the site (see Figure 2). The closest known record of desert tortoise was 3.6 miles north of the site (CNDDDB 2010).

Table 2: Desert Tortoise Sign Key

Sign Type	Class 1	Class 2	Class 3	Class 4	Class 5
Burrow and Den	Currently active with tortoise or recent tortoise sign	Good condition, definitely tortoise but no evidence of recent use	Deteriorated condition but is definitely tortoise	Deteriorated condition, possibly tortoise (no other corroborating sign)	Good condition, possibly tortoise (no other corroborating sign)
Scat	Wet or moist but not from rain or dew or dried but with obvious odor	Dry, dark brown, has a glaze, and some odor	Dry, has no glaze or odor, is slightly bleached, is light brown, and plant fibers are tightly packed	Dry, has no glaze or odor, is somewhat bleached, is light brown to pale yellow, plant fibers are not tightly packed, and has a scaly appearance.	Dry, has no glaze or odor, is bleached, is white, and consists only of plant fibers
Carcasses, Shell Remains and bone fragments	Fresh or putrid	Fresh or putrid, is of normal color and the scutes adhere to the bone	Scutes are peeling from the bone	Shell bone is falling apart and the growth rings on the scutes are peeling	Disarticulated and scattered

Other wildlife detected included species common to the deserts of southern California (see Appendix 3). Representative reptiles included desert iguana (*Dipsosaurus dorsalis*), side-blotched lizard (*Uta stansburiana*), western whiptail (*Aspidoscelis tigris*), desert horned lizard (*Phrynosoma platyrhinos*), zebra-tailed lizard (*Callisaurus draconoides*), patch-nosed snake (*Salvadora hexalepis*) and sidewinder (*Crotalus cerastes*). Bird species observed included cactus wren (*Campylorhynchus brunneicapillus*), black-throated sparrow (*Amphispiza bilineata*), Gambel's quail (*Callipepla gambelii*) and lesser nighthawk (*Chordeiles acutipennis*). Mammals

detected included kangaroo rat (*Dipodomys* sp.), desert kit fox (*Vulpes macrotis arsipus*) and coyote (*Canis latrans*). The mammals were primarily identified indirectly, by burrows, bones, scat and prints/tracks. Desert kit fox colonies and kangaroo rat burrows were abundant throughout the site. Desert kit fox is not listed as a special-status species by CDFG or BLM, but it is protected under Title 14, California Code of Regulations (Title 14, Section 460) from trapping and hunting. Several species of kangaroo rat may occur in the area, but none are rare or are listed as a special-status species by CDFG or BLM. They cannot be identified to species from the burrow characteristics observed in the field.

5.0 OTHER SPECIAL-STATUS SPECIES OBSERVED

One other special-status wildlife species, the American badger (*Taxidea taxus*) was detected onsite during the surveys. Three burrows belonging to the badger, evident by the length of the excavated tailings (which is testament to their digging power) were observed and mapped (see Figure 2 and Photo 11). The badger burrows did not exhibit any recent sign of use (no scat, tracks or fresh tailings). The American badger is designated as a California Species of Special Concern (CSSC) by the CDFG.

6.0 CONCLUSIONS

The focused surveys detected no live tortoises or sign of recent tortoise occupation onsite. However, desert tortoise occurs in the vicinity, evident by the desert tortoise burrows, the three small bone fragments, and the road-killed desert tortoise observed en-route to the site. Desert tortoises should be expected to occur on the project site in low densities. These results are consistent with what is already known about desert tortoise occurrence this region of the Colorado Desert: desert tortoises occur in relatively low numbers in this part of their geographic range.

Three burrows belonging to the American badger were also observed onsite. The American badger is designated a CSSC by the CDFG. We conclude that American badger is present onsite.

Although not observed, there is potential for a variety other special-status wildlife species to occur onsite based on CNDDDB records, geographic range and presence of suitable habitat. These include burrowing owl (*Athene cunicularia*), prairie falcon, Bendire's thrasher, Le Conte's thrasher, Nelson's bighorn sheep, and California leaf-nosed bat. These species and other special-status resources (e.g., nesting birds protected by the Migratory Bird Treaty Act; and state-jurisdictional streambeds or federally-jurisdictional waters of the United States) should be addressed in a separate comprehensive biological technical report for the project, and are not included within the scope of this focused desert tortoise survey report.

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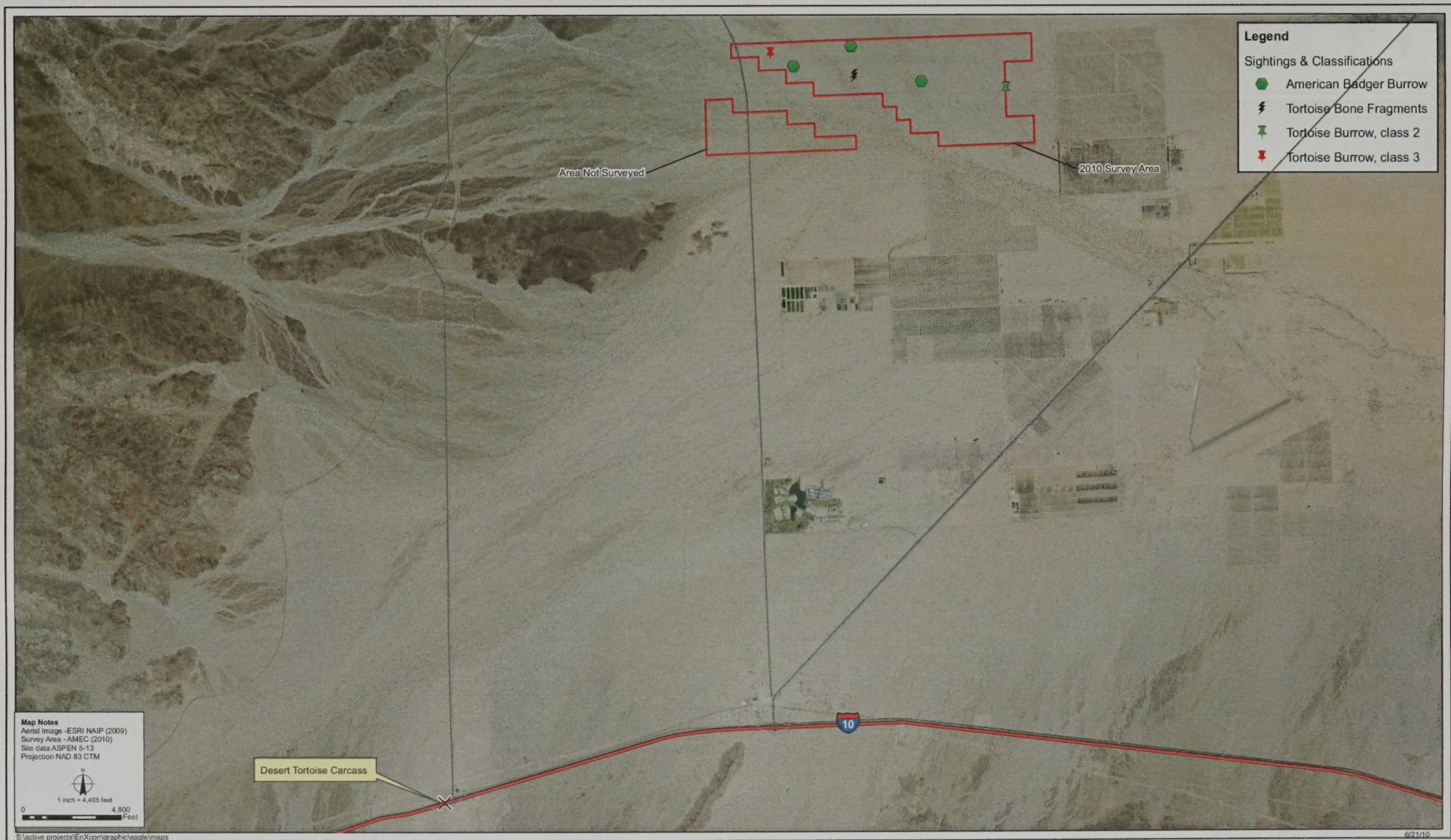
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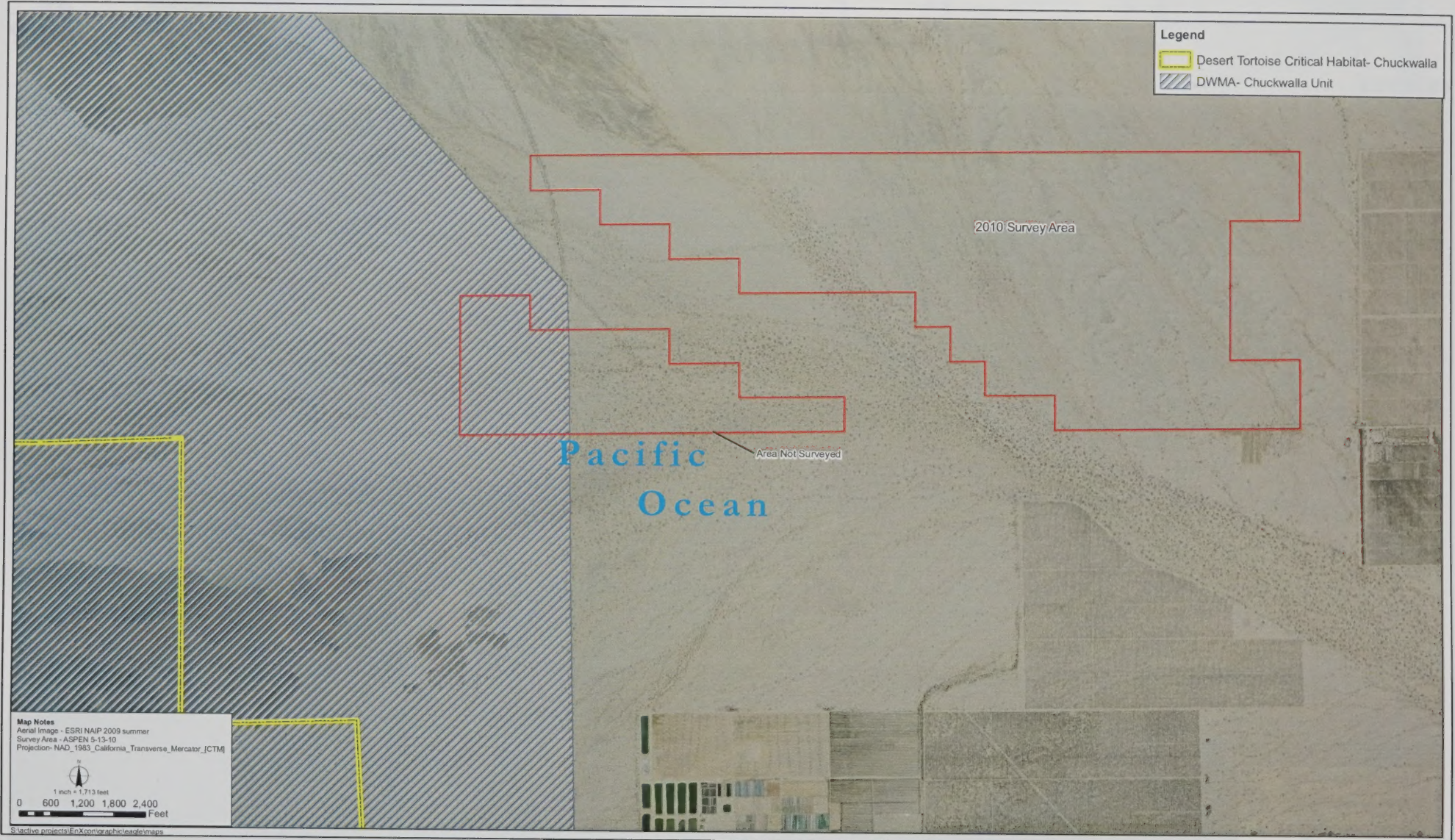
APPENDIX 1

Desert Harvest

FIGURES







APPENDIX 2

Desert Harvest

REPRESENTATIVE SITE PHOTOS

Desert Harvest Project



Photo 1. Representative example of Creosote Bush-White Burr Sage Scrub vegetation community during the focused desert tortoise and concurrent rare plant surveys.



Photo 2. Biologists walking transects during the focused desert tortoise and concurrent rare plant surveys.

Desert Harvest Project



Photo 3. Representative example of Smoke Tree Woodland vegetation community during the focused desert tortoise and concurrent rare plant surveys.



Photo 4. Representative example of Smoke Tree Woodland vegetation community during the focused desert tortoise and concurrent rare plant surveys.

Desert Harvest Project



Photo 5. Representative example of sparsely-vegetated desert pavement soils during the focused desert tortoise and concurrent rare plant surveys.



Photo 6. Biologists recording data at the end of their transects during the focused desert tortoise and concurrent rare plant surveys.

Desert Harvest Project

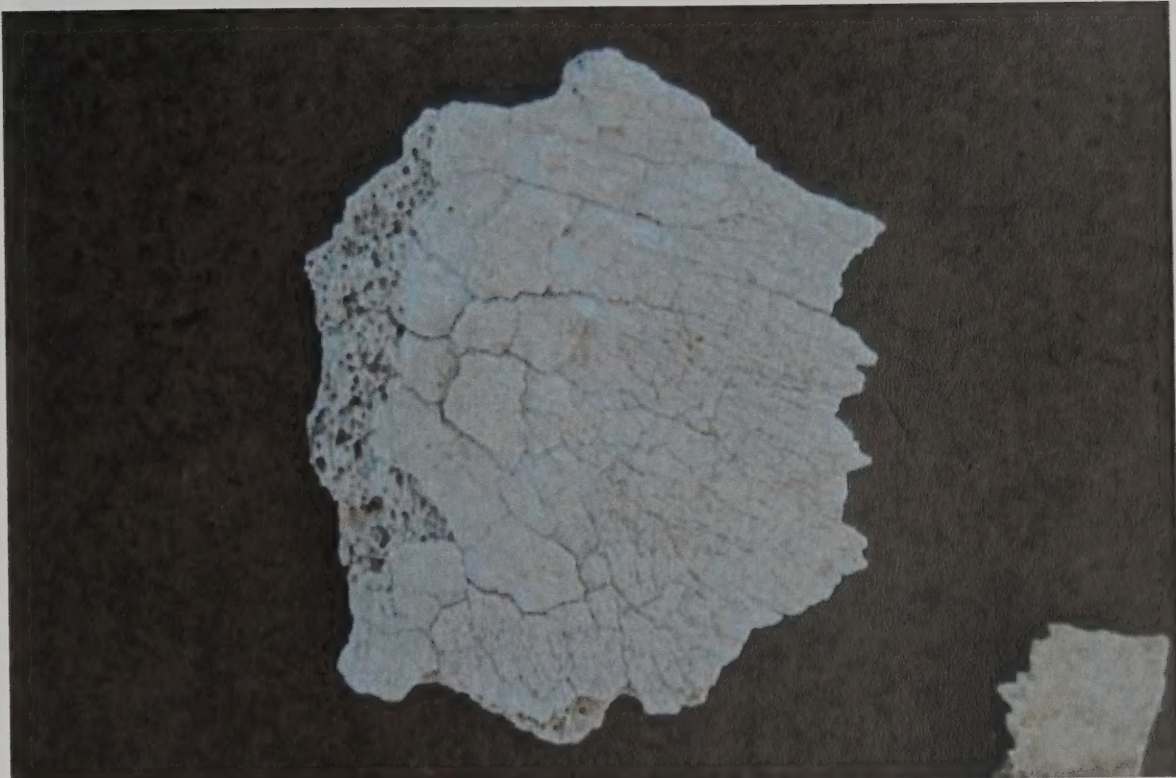


Photo 7. Possible desert tortoise (class 5) bone fragment.



Photo 8. Possible desert tortoise (class 5) bone fragment.

Desert Harvest Project



Photo 9. Representative example of kit fox colony with multiple burrow entrances.



Photo 10. Representative onsite American badger burrow.

APPENDIX 3

Desert Harvest

OBSERVED FAUNA SPECIES LIST

APPENDIX 3

Wildlife Observed on Desert Harvest

This list reports only plants and animals observed on or immediately adjacent to the site while conducting focused desert tortoise and rare plant surveys for this project. Other species may have been overlooked or undetectable due to their activity season.

Nomenclature and taxonomy for fauna observed on site follows Stebbins (1985) and Collins (1990) for herpetofauna, American Ornithologists' Union Checklist (1983 and supplements) for avifauna, and Laudenslayer *et al.* (1991) for mammals.

HERPETOFAUNA

TESTUDINES

Testudinidae

***Gopherus agassizii*

SQUAMATA

Crotaphytidae

Gambelia wislizenii

Iguanidae

Dipsosaurus dorsalis

Phrynosomatidae

Callisaurus draconoides

Phrynosoma platyrhinos

Sceloporus magister

Urosaurus graciosus

Uta stansburiana

Teiidae

Aspidooscelis tigris

Colubridae

Salvadora hexalepis

Viperidae

Crotalus cerastes

AVIFAUNA

Odontophoridae

Callipepla gambelii

Cathartidae

Cathartes aura

REPTILES & AMPHIBIANS

TURTLES

Land Tortoises

desert tortoise (burrows, bone fragments)

LIZARDS & SNAKES

Collared and Leopard Lizards

long-nosed leopard lizard

Iguanids

desert iguana

Spiny Lizards & Relatives

zebra-tailed lizard

desert horned lizard

desert spiny lizard

long-tailed brush lizard

side-blotched lizard

Whiptails & Racerunners

Western whiptail

Colubrids

patch-nosed snake

Vipers

sidewinder

BIRDS

New World Quail

Gambel's quail

Vultures

turkey vulture

Columbidae

Zenaida macroura

Caprimulgidae

Chordeiles acutipennis

Apodidae

Chaetura vauxi

Corvidae

Corvus corax

Alaudidae

Eremophila alpestris

Hirundinidae

Hirundo rustica

Petrochelidon pyrrhonota

Remizidae

Auriparus flaviceps

Troglodytidae

Campylorhynchus brunneicapillus

Thraupidae

Piranga ludoviciana

Emberizidae

Amphispiza bilineata

Chondestes grammacus

Spizella breweri

MAMMALIA**Leporidae**

Lepus californicus

Sciuridae

Spermophilus tereticaudus

Heteromyidae

Dipodomys sp.

Muridae

Neotoma lepida

Mustelidae

***Taxidea taxus*

Canidae

Canis latrans

Vulpes macrotis arsipus

Pigeons and Doves

mourning dove

Goatsuckers

lesser nighthawk

Swifts

Vaux's swift

Jays, Magpies, and Crows

common raven

Larks

horned lark

Swallows

barn swallow

cliff swallow

Verdin

verdin

Wrens

cactus wren

Tanagers

western tanager

Emberizines

black-throated sparrow

lark sparrow

Brewer's sparrow

MAMMALS**Rabbits and Hares**

black-tailed jackrabbit

Squirrels

round-tailed ground squirrel

Hereromyid Rodents

kangaroo rat (burrows)

Rats, Mice, and Voles

desert woodrat (middens)

Weasels & Relatives

American badger (burrows)

Foxes, Wolves, Coyotes

coyote (burrows, scat, prints/tracks)

desert kit fox (bones, burrows, colonies, scat, prints/tracks)

** Special-status species

Appendix C.2

2011 Focused Survey for Desert Tortoise
(*Gopherus agassizii*) on Southwestern
Portion of ROW Application

Desert Harvest

2011 Focused Survey for Desert Tortoise (*Gopherus agassizii*) on Southwestern Portion of ROW Application

Riverside County, California
Township 4 South, Range 15 East, Sections 26 & 27
USGS 7.5' Victory Pass Quadrangle

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Report Date: 16 September 2011

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Desert Harvest

2011 Focused Survey for Desert Tortoise (*Gopherus agassizii*) on Southwestern Portion of ROW Application

EXECUTIVE SUMMARY

A focused survey for the desert tortoise (*Gopherus agassizii*) was conducted by AMEC Earth & Environmental, Inc. (AMEC) between 26-28 May 2011 on a portion of the proposed Desert Harvest project (project), located in unincorporated eastern Riverside County, California. The 270-acre survey area is located near and southwest of, but is not contiguous to a larger 1,057-acre portion of the project site, which was surveyed by AMEC for desert tortoise and rare plants in 2010. Both sites are located on lands administered by the Bureau of Land Management (BLM) and are proposed to be the location of a 100-150 mega-watt photovoltaic panel solar power plant. This study, contracted to AMEC by Aspen Environmental Group (Aspen), presents the results of the field surveys for the 270-acre site and in this site's zone of influence (ZOI).

The project site is located within the Colorado Desert Recovery Unit as described in the Draft Revised Desert Tortoise Recovery Plan for the Mojave Population of the Desert Tortoise (*Gopherus agassizii*) (United States Fish and Wildlife Service [USFWS] 2008) but not within designated critical habitat for the desert tortoise. The nearest designated critical habitat for the desert tortoise is the Chuckwalla Unit located approximately 1 mile southwest of the project site. The western-most 113 acres of the 270-acre site (i.e., the area west of Kaiser Road), however is within the Chuckwalla Desert Wildlife Management Area (DWMA) for the desert tortoise (USFWS 2008).

A literature search was conducted to identify special-status biological resources known from the vicinity of the project site. The focused survey for the desert tortoise was conducted in accordance with the currently accepted survey protocol (USFWS 2010).

No live desert tortoises or any definitive sign of desert tortoise were observed on the project site or within the ZOI. Eight possible desert tortoise burrows, designated as class 5 (possibly tortoise, good condition), were observed onsite. One additional class 5, possible desert tortoise burrow, was also observed offsite, within the zone of influence. None of these burrows exhibited any evidence of recent use or corroborating sign. No live desert tortoises, active or definitive desert tortoise burrows, scat, tracks/prints, drinking depressions, courtship rings, carcasses or fragments of carcasses were observed on the project site or within the ZOI.

Although not observed onsite, the desert tortoise occurs in the vicinity, evident by the presence of two definite tortoise burrows and three small, possible tortoise bone fragments observed in 2010 on the 1,057-acre site, approximately 0.5 mile northeast of the 270-acre subject site and a road-killed tortoise observed in 2010 near the Eagle Mountain off ramp on east-bound Interstate 10 (I-10) approximately 6.5 miles southwest of the site. These results are consistent with what is already known about desert tortoise occurrence this region of the Colorado Desert: desert tortoises occur in relatively low numbers in this part of their geographic range. The

USFWS desert tortoise survey guidelines consider the presence of any tortoise sign (scat, burrows, and carcasses) to indicate presence of desert tortoise (USFWS 2010).

Emory's crucifixion thorn (*Castela emoryi*), a California Native Plant Species (CNPS) List 2.3 species, were incidentally observed throughout the site (see Photos 3 & 4 in Appendix 2).

Although no live tortoises or definitive sign thereof were observed onsite, there is a possibility that desert tortoise could occur onsite at any time in the future. This conclusion is based on CNDDDB records for the desert tortoise in the vicinity, the tortoise sign found on the 1,057-acre Desert Harvest site and the road-killed desert tortoise observed near the Eagle Mountain off ramp of the east-bound Interstate 10 in 2010.

Based on CNDDDB records, a variety other special-status wildlife species may have potential to occur onsite and in the vicinity. These include burrowing owl (*Athene cunicularia*), prairie falcon (*Falco mexicanus*), Bendire's thrasher (*Toxostoma bendirei*), Le Conte's thrasher (*Toxostoma lecontei*), Nelson's bighorn sheep (*Ovis canadensis nelsoni*), pallid bat (*Antrozous pallidus*), western mastiff bat (*Eumops perotis californicus*), and California leaf-nosed bat (*Macrotus californicus*). No further analysis of potential occurrence of these species or other biological resources is provided in this report. A separate, comprehensive biological technical report prepared for this project, should address these species, along with other special-status resources (e.g., rare plants, nesting birds protected by the Migratory Bird Treaty Act, and jurisdictional waters of the California and United States).

Desert Harvest

2011 Focused Survey for Desert Tortoise (*Gopherus agassizii*) on Southwestern Portion of ROW Application

1.0 INTRODUCTION

AMEC Earth & Environmental, Inc. (AMEC) was contracted by Aspen Environmental Group (Aspen) to conduct a focused survey for desert tortoise (*Gopherus agassizii*) in spring 2011 on a 270-acre portion of the proposed Desert Harvest photovoltaic solar energy project site (herein "project" or "site") located in unincorporated Riverside County California. The proposed project consists of the development of a 100-150 mega-watt photovoltaic panel solar power plant. The objective of this study is to determine the presence or absence of the desert tortoise on, and within the zone of influence of, the 270-acre portion of the site.

The Mojave population of the desert tortoise, which includes tortoises occurring in California's Colorado Desert, is federally and state listed as threatened. Development projects proposed within the geographic range of desert tortoise require an assessment of site's habitat suitability and focused surveys, where suitable habitat is present, in order to determine the onsite status of the species. Impacts to desert tortoise require both federal and state permitting as well as incorporation of impact avoidance (where possible), minimization, and mitigation measures into project design.

2.0 PROJECT LOCATION & HABITAT DESCRIPTION

The Desert Harvest project site is located on public lands administered by the Bureau of Land Management (BLM) in unincorporated Riverside County, approximately 6 miles north of Desert Center, California (Township 4 South, Range 15 East, Sections 26 & 27, USGS 7.5' *Victory Pass* quadrangle) (see Figure 1). The site consists of two noncontiguous parcels, the 270-acre southeastern portion, which is the subject of this study and a northeastern 1,057-acre portion which was surveyed by AMEC for the desert tortoise and rare plants in 2010. The applicant, enXco Development Corporation (enXco) proposes to build a 100-150 mega-watt (MW) solar plant incorporating thin-film photovoltaic panels (enXco 2010). The serialized application number assigned by the BLM for this project is 049491.

The project site is currently vacant, undeveloped, natural open space. Dominant vegetation communities occurring onsite most closely match the creosote bush-white burr sage scrub (*Larrea tridentata* – *Ambrosia dumosa* shrubland alliance) and blue palo verde–ironwood woodland (*Parkinsonia florida* – *Olneya tesota* woodland alliance) as described by Sawyer et al. (2009). The creosote bush-white burr sage series is included within the "Sonoran creosote bush scrub" and blue palo verde–ironwood alliance is included within the "desert dry wash woodland" described by Holland (1986).

The creosote bush-white burr sage series is the most widespread vegetation type in the Colorado Desert. This vegetation is characterized by low shrub species diversity and the wide

spacing of the shrubs, usually with bare ground between, and is comprised of the codominant species creosote bush (*Larrea tridentata*) and white bursage (*Ambrosia dumosa*).

The blue palo verde–ironwood woodland occurs throughout the onsite dry washes and is dominated by ironwood (*Olneya tesota*) with lesser amounts of blue palo verde (*Parkinsonia florida*). This vegetation is characterized by the presence of arborescent, often spiny, shrubby trees generally associated with washes or alluvial deposits adjacent to washes. In general, plant species in desert wash habitats are taller, up to approximately 9m (30 ft) in height, and the washes are more densely vegetated than surrounding plant communities, such as the creosote bush-white burr sage series on the project site, with the height of the wash vegetation proportional to the size of the arroyo (Mayer and Laudenslayer 1988). The blue palo verde–ironwood woodland on the project site fits this description, with the ironwood and palo verde exceeding both the height and density of the surrounding creosote bush-white burr sage series and with many of the individual shrubs of this community located along the low, braided and vertically-incised banks of the onsite dry washes. This habitat supports a variety of wildlife species, essentially the same species as those occupying the creosote bush-white burr sage scrub.

Stands of Emory's crucifixion thorn (*Castela emoryi*), which consisted of up to nine individual plants sparsely distributed over a relatively small area, were also noted intermittently throughout the site (see Photos 3 & 4 in Appendix 2). Emory's crucifixion thorn is a California Native Plant Species (CNPS) List 2.3 species.

Ground surface visibility is greater than 80% (enXco 2010). Site topography is mostly flat with elevations ranging from 583 to 675 feet above mean sea level. Soils vary from sandy alluvium to hard packed desert pavement. Onsite ephemeral drainages flow southeasterly towards Desert Center at a slope of less than 1% (enXco 2010).

Surrounding land uses include undeveloped natural open space to the west, north and south. Some of the lands to the southeast of the site have been converted to agricultural uses in the past (jojoba [*Simmondsia chinensis*] farming) and appear to be presently abandoned.

The project site is located within the Colorado Desert Recovery Unit as described in the Draft Revised Desert Tortoise Recovery Plan for the Mojave Population of the Desert Tortoise (*Gopherus agassizii*), but not within designated critical habitat for the desert tortoise (USFWS 2008). The closest designated critical habitat, the Chuckwalla Unit, is located approximately 1 mile southwest of the project site. A portion of the project site, the approximate western-most 113.3 acres of the 270-acre site, is within the Chuckwalla Desert Wildlife Management Area (DWMA) for the desert tortoise (USFWS 2008) (see Figure 3).

Desert tortoise density estimates for the 1994-designated Eastern Colorado Recovery Unit in which the site is located ranged from 10.80 tortoises per km² in 2001 to 6.38 tortoises per km² in 2005 (USFWS 2008).

3.0 METHODS

3.1 Field Survey

A literature search was conducted to identify desert tortoise and other special-status biological resources known from the vicinity of the project site. In the context of this report, and for the purpose of this assessment, vicinity is defined as areas within an approximate 10-mile radius of the site. The literature search included a review of the following documents:

- CNDDDB's Special Animals List (CDFG 2011a)
- California Department of Fish and Game's (CDFG) California Natural Diversity Database (CNDDDB) version 3.1.1 RAREFIND application (CDFG 2011b)
- USGS 7.5' *Victory Pass, East of Victory Pass, Desert Center and Corn Spring* California quadrangles

The focused survey for the desert tortoise was conducted over 100% of the 270-acre site and within the buffer zone of Influence (ZOI) in accordance with the currently accepted survey protocol (USFWS 2010). Desert tortoise surveys were conducted on 26-28 May 2011 by AMEC biologists Matt Amalong, Tsegaye Mengistu, Nathan T. Moorhatch and Michael D. Wilcox and AMEC subconsultant Ted Rado (see Table 1 below).

Table 1: Survey Conditions and Data.

Date	Start/End	Personnel	Temperatures (F)	Wind (mph)	Cloud cover (%)
26 May 11	0815-1430	MA, TM, NM, TR, MW	77-100	0-10	0
27 May 11	0745-1542	MA, TM, NM, TR, MW	74-103	0-5	0
28 May 11	0609-1113	TM, TR	76-93	0-5	0

Key to personnel: MA (Matt Amalong), TM (Tsegaye Megistu), NM (Nathan Moorhatch), TR (Ted Rado) and MW (Michael Wilcox)

Belt transects, spaced 10 meters (m) apart, were systematically walked over the 270-acre project site. When observed, potential desert tortoise sign (i.e., burrows) was documented on appropriate survey forms (USFWS 2010). Potential desert tortoise sign observed was photographed with digital cameras and mapped using handheld GPS equipment. Where present, desert woodrat (*Neotoma lepida*) middens and animal burrows of various kinds (e.g., desert kit fox, coyote, badger, ground squirrel, kangaroo rat, burrowing owl, etc.) were carefully inspected for presence of desert tortoises and their sign. Parallel belt transects were also walked within the ZOI around the perimeter of the site at intervals of 200, 400 and 600 m.

General weather conditions were recorded at the start and end of each survey. Temperatures and time of day were recorded at the start and end of each transect. Weather conditions during the surveys consisted of clear skies with calm to slightly gusty winds (see Table 1 above).

Temperatures ranged from 74-103 degrees Fahrenheit (F). All wildlife detected was recorded on field forms and/or notes and a list of all species observed is included in Appendix 4.

4.0 RESULTS

The CNDDDB (2011) reports records of nine special-status wildlife species in the vicinity of the project site. These include desert tortoise, burrowing owl (*Athene cunicularia*), prairie falcon (*Falco mexicanus*), Bendire's thrasher (*Toxostoma bendirei*), Le Conte's thrasher (*Toxostoma lecontei*), Nelson's bighorn sheep (*Ovis canadensis nelsoni*), pallid bat (*Antrozous pallidus*), western mastiff bat (*Eumops perotis californicus*), and California leaf-nosed bat (*Macrotus californicus*). No further analysis of potential occurrence of these species or other biological resources is provided in this report. A separate, comprehensive biological technical report for this project, should address these species, along with other special-status resources (e.g., nesting birds protected by the Migratory Bird Treaty Act, jurisdictional waters of the California and United States).

No live desert tortoises, active or definitive desert tortoise burrows, scat, tracks/prints, drinking depressions, courtship rings, carcasses or fragments of carcasses were observed on the project site or within the ZOI. Eight class 5 potential desert tortoise burrows were found onsite and one class 5 potential desert tortoise burrow was found offsite within the ZOI (See Figure 2 in Appendix 1). Class 5 burrows are those that are in good condition, considered to be of possible tortoise origin but lack any other associated sign such as scat, tracks, carcasses or bone fragments, etc. (see Photos 5 & 6 in Appendix 2). Table 2 on the following page provides additional details regarding desert tortoise sign classifications. In 2010, one class 2 (definite desert tortoise burrow, in good condition) and one class 3 (definite desert tortoise burrow, in degraded condition) were observed within approximately 0.5 mile northeast on the nearby 1,057-acre portion of the project site (AMEC 2010). Additionally, a road-killed desert tortoise was observed at the Eagle Mountain off ramp of east-bound Interstate 10 (I-10) approximately 6.5 miles southwest of the site in 2010 (AMEC 2010). The closest known record of a live desert tortoise is 3.6 miles north of the site (CNDDDB 2011).

Other wildlife detected included species common to the deserts of southern California (see Appendix 3). Reptiles detected included desert iguana (*Dipsosaurus dorsalis*), side-blotched lizard (*Uta stansburiana*), western whiptail (*Aspidoscelis tigris*), zebratail lizard (*Callisaurus draconoides*) and shovelnose snake (*Chinoactis occipitalis*). Bird species observed included turkey vulture (*Cathartes aura*), white-winged dove (*Zenaida asiatica*), mourning dove (*Zenaida macroura*), lesser nighthawk (*Chordeiles acutipennis*), black-tailed gnatcatcher (*Polioptila melanura*), ladder-backed woodpecker (*Picoides scalaris*), ash-throated flycatcher (*Myiarchus cinerascens*), common raven (*Corvus corax*), verdin (*Auriparus flaviceps*) and black-throated sparrow (*Amphispiza bilineata*). Mammals detected included round-tailed ground squirrel (*Spermophilus tereticaudus*), desert woodrat (*Neotoma lepida*), black-tailed jackrabbit (*Lepus californicus*), kangaroo rat (*Dipodomys* sp.) and desert kit fox (*Vulpes macrotis arsipus*). Some of the mammals detected were identified indirectly by burrows, middens, bones, scat and/or prints/tracks.

Table 2: Desert Tortoise Sign Key

Sign Type	Class 1	Class 2	Class 3	Class 4	Class 5
Burrow and Den	Currently active with tortoise or recent tortoise sign	Good condition, definitely tortoise but no evidence of recent use	Deteriorated condition but is definitely tortoise	Deteriorated condition, possibly tortoise (no other corroborating sign)	Good condition, possibly tortoise (no other corroborating sign)
Scat	Wet or moist but not from rain or dew or dried but with obvious odor	Dry, dark brown, has a glaze, and some odor	Dry, has no glaze or odor, is slightly bleached, is light brown, and plant fibers are tightly packed	Dry, has no glaze or odor, is somewhat bleached, is light brown to pale yellow, plant fibers are not tightly packed, and has a scaly appearance.	Dry, has no glaze or odor, is bleached, is white, and consists only of plant fibers
Carcasses, Shell Remains and bone fragments	Fresh or putrid	Fresh or putrid, is of normal color and the scutes adhere to the bone	Scutes are peeling from the bone	Shell bone is falling apart and the growth rings on the scutes are peeling	Disarticulated and scattered

Desert kit fox colonies and kangaroo rat burrows were abundant throughout the site. Desert kit fox is not listed as a special-status species by CDFG or BLM, but it is protected under Title 14, California Code of Regulations (Title 14, Section 460) from trapping and hunting. Several species of kangaroo rat may occur in the area, but none are rare or are listed as a special-status species by CDFG or BLM. They cannot be identified to species from the burrow characteristics observed in the field.

5.0 CONCLUSIONS

The focused surveys detected no definitive sign of desert tortoise onsite or within the ZOI. No live tortoises, definite tortoise burrows, scat, carcasses, bone fragments, drinking depressions or courtship rings were observed. A total of nine class 5 burrows considered to be possible desert tortoise were detected. These burrows were of the appropriate shape and size, but no other corroborating desert tortoise sign was found. For this reason, these burrows can only be considered to be of possible tortoise origin. The desert tortoise is, however, known to occur in the vicinity, evident by definite desert tortoise burrows and several small bone fragments found on the 1,057-acre Desert Harvest site, and a road-killed desert tortoise observed near the Eagle Mountain off ramp of the east-bound Interstate 10 in 2010. Therefore, despite lack of definitive tortoise sign, there is still potential for desert tortoise to occur on the project site in low densities at any time in the future. These results are consistent with what is already known about desert tortoise occurrence this region of the Colorado Desert: desert tortoises occur in relatively low numbers in this part of their geographic range.

Although not observed, there is potential for a variety of other special-status wildlife species to occur onsite based on CNDDB records, geographic range and presence of suitable habitat. These include burrowing owl (*Athene cunicularia*), prairie falcon (*Falco mexicanus*), Bendire's thrasher (*Toxostoma bendirei*), Le Conte's thrasher (*Toxostoma lecontei*), Nelson's bighorn sheep (*Ovis canadensis nelsoni*), pallid bat (*Antrozous pallidus*), western mastiff bat (*Eumops perotis californicus*), and California leaf-nosed bat (*Macrotus californicus*). These species and other special-status resources (e.g., nesting birds protected by the Migratory Bird Treaty Act; and state-jurisdictional streambeds or federally-jurisdictional waters of the United States) should be addressed in a separate comprehensive biological technical report for the project, and are not included within the scope of this focused desert tortoise survey report.

6.0 LITERATURE CITED AND REFERENCES

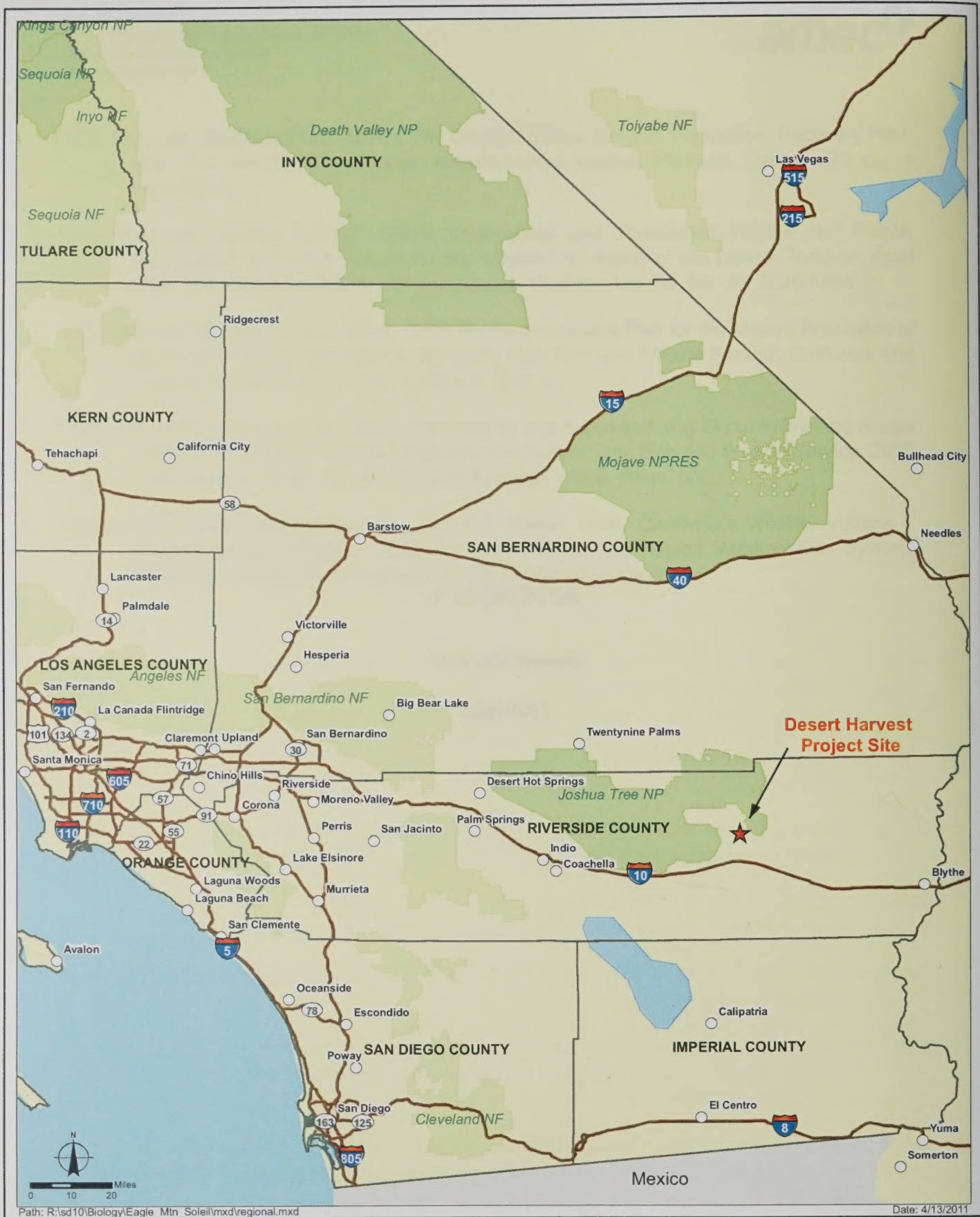
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APPENDIX 1

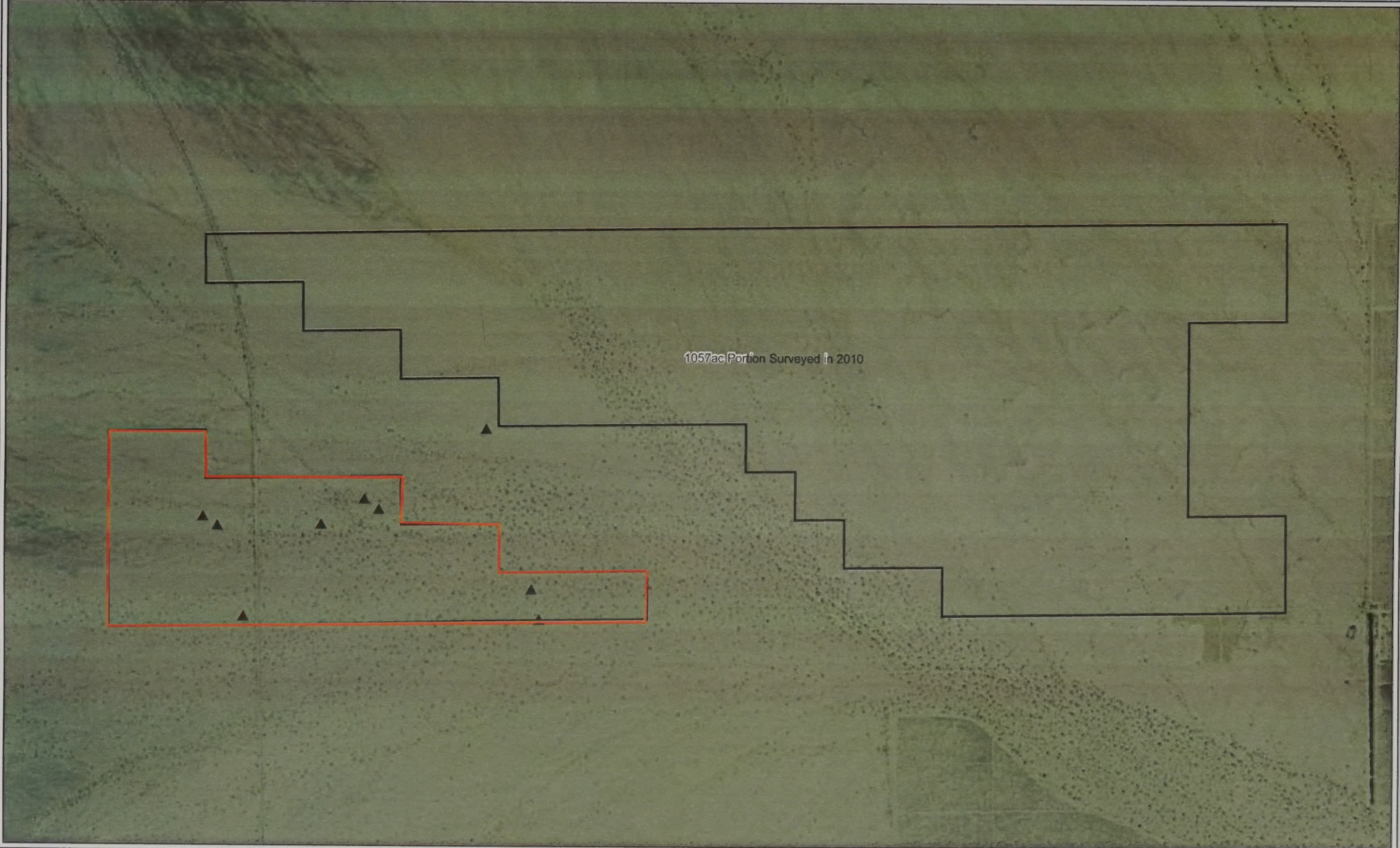
Desert Harvest

FIGURES



FIGURE

1



270ac Site Boundary*

Possible Desert Tortoise Burrow

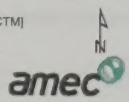
Desert Harvest Project

Figure 2

Desert Tortoise Sign

0 1,000 2,000 Feet

Data-
Projection: NAD_1983_California_Transverse_Mercator_[CTM]
Resources: Boundary_EagleMtn_041310(ASPEN)
Path:S:\active projects\EnXco\Desert Harvest 1155400460
Survey:AMEC-5.26-28.11
Date: 8/15/11





06/07/10

Desert Tortoise Critical Habitat & Desert Wildlife Management Area
Desert Harvest Project

FIGURE

3

APPENDIX 2

Desert Harvest

REPRESENTATIVE SITE PHOTOS

Desert Harvest



Photo 1. Representative example of creosote bush-white bursage and blue palo verde-ironwood woodland present on the 270-acre parcel.



Photo 2. Representative example of creosote bush-white bursage and blue palo verde-ironwood woodland series present on the 270-acre parcel.

Desert Harvest Project



Photo 3. Emory's crucifixion thorn plants observed onsite. Surveyors lined up on transects in background, representative small mammal burrow in foreground beneath shrub.



Photo 4. Surveyor stands next to an onsite Emory's crucifixion thorn.

Desert Harvest Project



Photo 5. Onsite class 5 "possible" desert tortoise burrow observed during surveys.



Photo 6. Onsite class 5 "possible" desert tortoise burrow observed during surveys.

APPENDIX 3

Desert Harvest

APPENDIX 3

Desert Harvest

OBSERVED FAUNA SPECIES LIST

APPENDIX 3

Wildlife Observed on Desert Harvest 270-acre Site

This list reports only plants and animals observed on or immediately adjacent to the site while conducting focused desert tortoise and rare plant surveys for this project. Other species may have been overlooked or undetectable due to their activity season.

Nomenclature and taxonomy for fauna observed on site follows Stebbins (2003) and Collins and Taggart (2009) for herpetofauna, American Ornithologists' Union Checklist (1983 and supplements) for avifauna, and Laudenslayer *et al.* (1991) for mammals.

HERPETOFAUNA

SQUAMATA

Iguanidae

Dipsosaurus dorsalis

Phrynosomatidae

Callisaurus draconoides

Uta stansburiana

Teiidae

Aspidozelis tigris

Colubridae

Chionactis occipitalis

AVIFAUNA

Cathartidae

Cathartes aura

Columbidae

Zenaida asiatica

Zenaida macroura

Caprimulgidae

Chordeiles acutipennis

Tyrannidae

Myiarchus cinerascens

Picidae

Picoides scalaris

Corvidae

Corvus corax

REPTILES & AMPHIBIANS

LIZARDS & SNAKES

Iguanids

desert iguana

Spiny Lizards & Relatives

zebratail lizard

side-blotched lizard

Whiptails & Racerunners

western whiptail

Colubrids

western shovelnose snake

BIRDS

Vultures

turkey vulture

Pigeons and Doves

white-winged dove

mourning dove

Goatsuckers

lesser nighthawk

Tyrant Flycatchers

ash-throated flycatcher

Woodpeckers and Allies

ladder-backed woodpecker

Jays, Magpies, and Crows

common raven

Remizidae

Auriparus flaviceps

Sylviidae

Poliophtila melanura

Emberizidae

Amphispiza bilineata

MAMMALIA**Leporidae**

Lepus californicus

Sciuridae

Spermophilus tereticaudus

Heteromyidae

Dipodomys sp.

Muridae

Neotoma lepida

Canidae

Vulpes macrotis arsipus

Verdin

verdin

Old World Warblers and Gnatcatchers

black-tailed gnatcatcher

Emberizines

black-throated sparrow

MAMMALS**Rabbits and Hares**

black-tailed jackrabbit

Squirrels

round-tailed ground squirrel

Hereromyid Rodents

kangaroo rat (burrows)

Rats, Mice, and Voles

desert woodrat (middens)

Foxes, Wolves, Coyotes

desert kit fox (bones, burrows, colonies, scat, prints/tracks)

** Special-status species

APPENDIX 4

Desert Harvest

FIELD SURVEY FORMS

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 26 May 2011 Survey biologist(s): Matt Amalorg, matt.amalorg@anec.com, 949-232134
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest, N of Desert Center (~5 miles N)
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 ac Transect #: 4 Transect length: 0.75 mile

GPS Start-point: 648052, 3739736, 201 Start time: 8:15 am/pm
(easting, northing, elevation in meters)

GPS End-point: 649643, 3739766, 190 End time: 8:51 am/pm
(easting, northing, elevation in meters)

Start Temp: 25 °C End Temp: 30 °C

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 26 May 2011 Survey biologist(s): Matt Amalony, matt.amalony@amec.com, 747-233-
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest ~5 miles N of Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: Carver Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 ac Transect #: 9 Transect length: 1.4 miles

GPS Start-point: 649641, 3739814, 189 Start time: 9:05 am/pm
(easting, northing, elevation in meters)

GPS End-point: 647425, 3739775, 211 End time: 10:02 am/pm
(easting, northing, elevation in meters)

Start Temp: 30 °C End Temp: 31 °C

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 26 May 2011 Survey biologist(s): Matt Amalony, matt.amalony@amcc.com, 949-233-2134
(day, month/year) (name/email, and phone number)

Site description: Desert Harvest ~5 mi. N of Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 ac. Transect #: 14 Transect length: 1.4 mi.

GPS Start-point: 647424, 3739825, 211 Start time: 10:13 am/pm
(easting, northing, elevation in meters)

GPS End-point: 649640, 3739864, 191 End time: 11:07 am/pm
(easting, northing, elevation in meters)

Start Temp: 31 °C End Temp: 33 °C

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 26 May 2011 Survey biologist(s): Matt Amalony, matt.amalony@amecc.com, 949-233-2131
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest ~5 mi. N of Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaver Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 ac. Transect #: 19 Transect length: 1.4 mi.

GPS Start-point: 649639, 3737914, 190 Start time: 11:24 am/pm
(easting, northing, elevation in meters)

GPS End-point: 647423, 3739875, 210 End time: 12:29 am/pm
(easting, northing, elevation in meters)

Start Temp: 33 °C End Temp: 33 °C

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 26 May 2011 Survey biologist(s): Matt Amalony, matt.amalony@amec.com, 749233213
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest ~5 mi. N of Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage of Sampling Area size to be surveyed: 257 ac. Transect #: 24 Transect length: 1 mi.

GPS Start-point: 647423, 3739925, 212 Start time: 12:36 am/pm pm
(easting, northing, elevation in meters)

GPS End-point: 649030, 3739954, 200 End time: 13:05 am/pm pm
(easting, northing, elevation in meters)

Start Temp: 33 °C End Temp: 34 °C

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 26 May 2011 Survey biologist(s): Matt Amalony, Matt.amalony@ancec.com, 749233213
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest ~5 mi. N of Desert Center
(project name and size; general location)

County: Riverside Quad: Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 ac. Transect #: 29 Transect length: 1 mi.

GPS Start-point: 649029, 3740004, 200 Start time: 13:15 am/pm
(easting, northing, elevation in meters)

GPS End-point: 647422, 3739975, 210 End time: 14:00 am/pm
(easting, northing, elevation in meters)

Start Temp: 34 °C End Temp: 38 °C

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
3						
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5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 26 May 2011 Survey biologist(s): Matt Amalony, matt.amalony@usfws.com, 749 233 2131
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest ~5 mi. N of Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: Kayser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 ac. Transect #: 34W Transect length: 0.4 mi.

GPS Start-point: 647421, 3740025, 211 Start time: 14:07 am/pm pm
(easting, northing, elevation in meters)

GPS End-point: 648048, 3740036, 205 End time: 14:19 am/pm
(easting, northing, elevation in meters)

Start Temp: 38 °C End Temp: 38 °C

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27 May 2011 Survey biologist(s): Matt Amalony, matt.amalony@anec.com, 949-233-213
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest ~5 mi. N of Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 ac Transect #: 34E Transect length: 0.6 mi.

GPS Start-point: 648048, 3740036, 205 Start time: 7:45 am/pm
(easting, northing, elevation in meters)

GPS End-point: 649029, 3740054, 191 End time: 8:08 am/pm
(easting, northing, elevation in meters)

Start Temp: 25 °C End Temp: 25 °C

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1						
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Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27 May 2011 Survey biologist(s): Matt Amalong, matt.amalong@amec.com, 949-233-2134
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest ~5 mi. N of Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 ac. Transect #: 39 Transect length: 1 mi.

GPS Start-point: 649028, 3740104, 193 Start time: 8:22 am pm
(easting, northing, elevation in meters)

GPS End-point: 647420, 3740075, 208 End time: 8:57 am pm
(easting, northing, elevation in meters)

Start Temp: 25 °C End Temp: 28 °C

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1						
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7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27 May 2011 Survey biologist(s): Matt Amalong, matt.amalong@amec.com, 949-233-213
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest ~5 mi. N of Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 ac. Transect # 600NW Transect length: 1.2 mi

GPS Start-point: 646835, 3740042, 218 Start time: 9:30 am/pm
(easting, northing, elevation in meters)

GPS End-point: 647919, 3741114, 207 End time: 10:00 am/pm
(easting, northing, elevation in meters)

Start Temp: 29 °C End Temp: 30 °C

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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5						
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7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27 May 2011 Survey biologist(s): Matt Amalony, matt.amalony@awcc.com
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest ~5 mi. N of Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 ac. Transect #: 400 NW Transect length: 1.03 mi.

GPS Start-point: 647971, 3740863, 206 Start time: 10:06 am/pm
(easting, northing, elevation in meters)

GPS End-point: 647027, 3740049, 216 End time: 10:30 am/pm
(easting, northing, elevation in meters)

Start Temp: 30 °C End Temp: 31 °C

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
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4				
5				
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8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27 May 2011 Survey biologist(s): Matt Amalony, matt.amalony@amec.com, 749-233-2
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest ~5 mi. N of Desert Center
(project name and size, general location)

County: Riverside Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 ac. Transect # 200 NW Transect length: 0.95 mi.

GPS Start-point: 617225, 3740058, 213 Start time: 10:37 am/pm
(easting, northing, elevation in meters)

GPS End-point: 648034, 3740499, 203 End time: 11:04 am/pm
(easting, northing, elevation in meters)

Start Temp: 31 °C End Temp: 32 °C

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
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4				
5				
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7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27 May 2011 Survey biologist(s): Matt Analogy, matt.analogy@amec.com, 949-2332134
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest ~5 mi. N of Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 ac. Transect #: 52 Transect length: 0.75 mi.

GPS Start-point: 647425, 3740204, 213 Start time: 12:09 am/pm
(easting, northing, elevation in meters)

GPS End-point: 648629, 3740227, 203 End time: 12:38 am/pm
(easting, northing, elevation in meters)

Start Temp: 35 °C End Temp: 38 °C

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27 May 2011 Survey biologist(s): Matt Analong, matt.analong@amec.com
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest ~5 mi. N of Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 ac. Transect #: 55 Transect length: 0.75 mi.

GPS Start-point: 648627, 3740257, 203 Start time: 12:48 am/pm pm
(easting, northing, elevation in meters)

GPS End-point: 647423, 3740237, 213 End time: 13:23 am/pm pm
(easting, northing, elevation in meters)

Start Temp: 38 °C End Temp: 39 °C

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1						
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5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27 May 2011 Survey biologist(s): Matt Amalong, matt.amalong@amec.com, 9492332134
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest ~5 mi. N of Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 ac. Transect #: 58 Transect length: 0.75 mi

GPS Start-point: 647423, 3740264, 212 Start time: 13:27 am/pm pm
(easting, northing, elevation in meters)

GPS End-point: 648626, 3740287, 203 End time: 13:57 am/pm pm
(easting, northing, elevation in meters)

Start Temp: 39 °C End Temp: 39 °C

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/26/2011 Survey biologist(s): Tsegaye Mengistu tmengista@yahoo.com
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project North of Desert Center (Smk)
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257ha Transect #: 5 Transect length: 3/4 mi

GPS Start-point: 0648087/3739744 E 662 F Start time: 8:15 am/pm
(easting, northing, elevation in meters)

GPS End-point: 149641/3739788 E 618 F End time: 8:51 am/pm
(easting, northing, elevation in meters)

Start Temp: 25 °C End Temp: 30 °C

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1						
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7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
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4				
5				
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7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/27/2011 Survey biologist(s): tsegaye Menoistu tmenigistu@yahoo.com
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project North of Desert Center (Smith)
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: _____ Transect #: 40 Transect length: 1 mi

GPS Start-point: 649028/3740114 6395' Start time: 8:23 am/pm
(easting, northing, elevation in meters)

GPS End-point: 649028/3740095 690' End time: 8:57 am/pm
(easting, northing, elevation in meters)

Start Temp: 25 °C 77 °F End Temp: 27 °C 79 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
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7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
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4				
5				
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8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/26/2011 Survey biologist(s): Tsegaye Mengistu tsegaye@usfws.gov
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project North of Desert Center (5 miles)
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257h Transect #: 10 Transect length: 1.5 mile

GPS Start-point: 0649625/3739839 618 ft Start time: 9:05 am/pm
(easting, northing, elevation in meters)

GPS End-point: 0647410/3739790 698 ft End time: 9:59 am/pm
(easting, northing, elevation in meters)

Start Temp: 30 °C 86 °F End Temp: 31 °C 88 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
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USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/26/2011 Survey biologist(s): Tsegaye Mengistu tmengist@yahoo.com
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project North of Desert Center (siml)
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 ha Transect #: 15 Transect length: 1.4 mi

GPS Start-point: 0644558/3620588. 698 ft Start time: 10:13 am/pm
(easting, northing, elevation in meters)

GPS End-point: 0649640/3739874. 626 ft End time: 11:07 am/pm
(easting, northing, elevation in meters)

Start Temp: 31 °C 88 °F End Temp: 92 °C 33 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
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USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/26/2011 Survey biologist(s): Tsegaye Mengistu tsegaye@yahoos-com
(day, month, year) (name, email, and phone number) 714-875-696

Site description: Desert Harvest Project North of Desert Center 15mi
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 ha Transect #: 20 Transect length: 1.4 mi

GPS Start-point: 0649639 13739924 626 ft Start time: 11:24 am/pm
(easting, northing, elevation in meters)

GPS End-point: 0647423 13739885 691 ft End time: 12:29 am/pm
(easting, northing, elevation in meters)

Start Temp: 32 °C 93 °F End Temp: 32 °C 90 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1						
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Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
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USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/26/2011 Survey biologist(s): Tsegaye Mengistie tsegaye@yahoo.com
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project North of Desert Center (5mi)
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257h Transect #: 25 Transect length: 1.0 mi

GPS Start-point: 0647423 / 3739975 6918+ Start time: 12:36 am/pm
(easting, northing, elevation in meters)

GPS End-point: 0640030 / 3739964 650ft End time: 13:05 am/pm
(easting, northing, elevation in meters)

Start Temp: 32 °C 92 °F End Temp: 33 °C 93 °F

Live Tortoises

Detection number	GPS location		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
	Easting	Northing				
1						
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Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location		Type of sign (burrows, scats, carcass, etc)	Description and comments
	Easting	Northing		
1				
2				
3				
4				
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USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/26/2011 Survey biologist(s): Tsegaye Mengistu tmenqista@yahoo.com
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project North of Desert Center (5Mile)
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 ha Transect #: 35 Transect length: 0.4 mi

GPS Start-point: 647421/3740035 697 ft Start time: 2:08 am/pm
(easting, northing, elevation in meters)

GPS End-point: 648048/3740046 666 ft End time: 2:19 am/pm
(easting, northing, elevation in meters)

Start Temp: 38 °C 100 °F End Temp: 39 °C 104 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow, all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
3						
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5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/27/2011 Survey biologist(s): Tsegaye Mengistie tmengist@yahoo.com
(day, month, year) (name, email, and phone number) 714-875-6968

Site description: Desert Harvest Project North of Desert Center (5 miles)
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: _____ Transect #: 35 Transect length: .6 mi

GPS Start-point: 648048/3740046 666 ft Start time: 7:45 am/pm
(easting, northing, elevation in meters)

GPS End-point: 649028/3740064 636 ft End time: 8:08 am/pm
(easting, northing, elevation in meters)

Start Temp: 24 °C 74 °F End Temp: 25 °C 77 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
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4						
5						
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7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/27/2011 Survey biologist(s): Tsegaye Mengistu tsegaye@yale.edu
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project North of Desert Center (5 mile)
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: _____ Transect #: 42 Transect length: 0.75 mi

GPS Start-point: 6490486/374100 210m Start time: 9:15 am/pm
(easting, northing, elevation in meters)

GPS End-point: 6484629/374026 199m End time: 9:50 am/pm
(easting, northing, elevation in meters)

Start Temp: 27 °C 83 °F End Temp: 28 °C 86 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes: No or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1	<u>0647875</u>	<u>3740107</u>	<u>burrow C.5</u>	<u>good condition no recent use</u>
2	<u>0648363</u>	<u>3740109</u>	<u>burrow C.5</u>	<u>good condition possible PT</u>
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/27/2011 Survey biologist(s): Tsegaye Mengistu tsegaye@yahoo.com
(day, month, year) (name, email, and phone number) 714-871-168

Site description: Desert Harvest Project
(project name and size; general location)

County: _____ Quad: _____ Location: Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: _____ Transect #: 46 Transect length: .75mi

GPS Start-point: 0877 4231 3740145 210m Start time: 10:40 am/pm
(easting, northing, elevation in meters)

GPS End-point: 0649 6629 3740164 196m End time: 11:05 am/pm
(easting, northing, elevation in meters)

Start Temp: 32 °C 89 °F End Temp: 31 °C 90 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/27/2011 Survey biologist(s): Tsegay Mengistie tsegayt@yahoo.com
(day, month, year) (name, email, and phone number)

Site description: Desert harvest Project North of Desert Center (5 miles)
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: _____ Transect #: 48 Transect length: 75m

GPS Start-point: 0648631/13740189 197m Start time: 11:15 (am/pm)
(easting, northing, elevation in meters)

GPS End-point: 0647424/3740163 209m End time: 12:04 am/pm
(easting, northing, elevation in meters)

Start Temp: 32 °C 90 °F End Temp: 35 °C 96 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1						
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8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/27/2011 Survey biologist(s): Tsegaye Mengistu tmengist@yahoo.com
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project North of Desert Center (5 miles)
(project name and size; general location)

County: Riverside Quad: _____ Location: Kasier Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: _____ Transect #: 44 Transect length: 0.75 mi

GPS Start-point: 0648630 / 3740148 199m Start time: 9:45 am/pm
(easting, northing, elevation in meters)

GPS End-point: 0647423 / 3740131 210m End time: 10:35 am/pm
(easting, northing, elevation in meters)

Start Temp: 28 °C 86 °F End Temp: 32 °C 94 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
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7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/27/2011 Survey biologist(s): Tsegaye Menekistu tmenekistu@yahoo.com
(day, month, year) (name, email, and phone number) 714-877-

Site description: Desert Harvest Project North of Desert center 5mi
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: (100% coverage) or Sampling Area size to be surveyed: _____ Transect #: 50 Transect length: 0.75mi

GPS Start-point: 0647423 / 3740185 197M Start time: 12:15 am/pm
(easting, northing, elevation in meters)

GPS End-point: 064724 / 3740206 201M End time: 12:38 am/pm
(easting, northing, elevation in meters)

Start Temp: 35 °C 96 °F End Temp: _____ °C

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
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3				
4				
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8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/27/2011 Survey biologist(s): T. Begaye Mengistu tmengist@yahoo.com
(day, month, year) (name, email, and phone number) 714-871-6968

Site description: Desert Harvest Project North of Desert Center (5mi)
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 217 ha Transect #: 5 Transect length: 75m

GPS Start-point: 0648625/3740250 203 M Start time: 12:48 am/pm
(easting, northing, elevation in meters)

GPS End-point: 0647419/3740227 212 M End time: 1:25 am/pm
(easting, northing, elevation in meters)

Start Temp: 38 °C 100 °F End Temp: 39 °C 102 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
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Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
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4				
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8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/29/2011 Survey biologist(s): Tsegaye Mengistu tmengist@yahoo.com
(day, month, year) (name, email, and phone number) 914 875

Site description: Desert harvest Project North of Desert center (5 mile)
(project name and size; general location)

County: Riverside Quad: _____ Location: Rainier Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 ha Transect #: 57 Transect length: 175 m

GPS Start-point: 0647418/3740258 212M Start time: 1:28 am/pm
(easting, northing, elevation in meters)

GPS End-point: 0648611/3746282 203M End time: 1:58 am/pm
(easting, northing, elevation in meters)

Start Temp: 39 °C 102 End Temp: 39 °C 101 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1						
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Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
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USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/27/2011 Survey biologist(s): Tsegaye Mengistu tsegaye@yahoo.com
((day, month, year)) (name, email, and phone number) 714-877-6968

Site description: Desert Harvest Project North of Desert Center (5mils)
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 217ha Transect #: 59 Transect length: 0.75

GPS Start-point: 0648630 13740297 670 ft Start time: 2:05 am/pm
(easting, northing, elevation in meters)

GPS End-point: 0647417 13740280 706 ft End time: 2:28 am/pm
(easting, northing, elevation in meters)

Start Temp: 39 °C 101 °F End Temp: _____ °C

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
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5				
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7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/27/2011 Survey biologist(s): Tsegaye Mengistu tsegaye@yahoo.com
(day, month, year) (name, email (and phone number))

Site description: Desert Harvest Project North of Desert Center (5mi)
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 217hec Transect #: 61 Transect length: 250mi

GPS Start-point: 0647422/3740302 706ft Start time: 2:40 am/pm
(easting, northing, elevation in meters)

GPS End-point: 0647850/3740291 687ft End time: 2:50 am/pm
(easting, northing, elevation in meters)

Start Temp: 37 °C 99 End Temp: 37 °C 99

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
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8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
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7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/27/2011 Survey biologist(s): Tsegaye Mengistu tsegaye@yahoo.com
(day, month, year) (name, email, and phone number) 714-875-6968

Site description: Desert Harvest Project North of Desert Center (5mi)
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 25 ha Transect #: 63 Transect length: ~2.5mi

GPS Start-point: 0647822 / 3740323 687 ft Start time: 2:54 am/pm (pm)
(easting, northing, elevation in meters)

GPS End-point: 0647147 / 3740320 760 ft End time: 3:01 am/pm (pm)
(easting, northing, elevation in meters)

Start Temp: 37 °C 99 °F End Temp: 37 °C 99 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
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7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
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7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/27/2011 Survey biologist(s): Tsegaye Mengistu emengiat@yahoo.com
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project North of Desert Center (5 mi)
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one 100% coverage or Sampling Area size to be surveyed: 217 ha Transect #: 65 Transect length: 25 m

GPS Start-point: 0647420/3740340 700 ft Start time: 3:08 am/pm (m)
(easting, northing, elevation in meters)

GPS End-point: 0647825/374348 686 ft End time: 3:15 am/pm (m)
(easting, northing, elevation in meters)

Start Temp: 38 °C / 101 °F End Temp: 38 °C / 101 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1						
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7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
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8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/27/2011 Survey biologist(s): Tsegaye Mengistu tmengist@yahoo.com
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project North Desert center (5 mile)
(project name and size; general location)

County: Riverside Quad: _____ Location: Raiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 217 hec Transect #: 67 Transect length: 1.25 mi

GPS Start-point: 0647822/3740363/6865ft Start time: 3:20 am/pm
(easting, northing, elevation in meters)

GPS End-point: 0647424/3740358/6979ft End time: 3:27 am/pm
(easting, northing, elevation in meters)

Start Temp: 38 °C 101 °F End Temp: 39 °C 103 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
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USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/27/2011 Survey biologist(s): Tsegaye Mengistu tmengistu@yahoo.com
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project North of Desert center (5 mi)
(project name and size, general location)

County: Riverside Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 217 ha Transect #: 69 Transect length: 25 mi

GPS Start-point: 0647423/3740381 692 ft Start time: 3:34 am/pm
(easting, northing, elevation in meters)

GPS End-point: 0647822/3740384 692 ft End time: 3:42 am/pm
(easting, northing, elevation in meters)

Start Temp: 39 °C 103 °F End Temp: 39 °C 103 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
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USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/28/2011 Survey biologist(s): Tsegaye Mengistu tmengist@yahoo.com
(day, month, year) (name, email, and phone number) 714-8756968

Site description: Desert Harvest Project North Desert Center (5mi)
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 217 ha Transect #: 600E Transect length: 2mi

GPS Start-point: 0648060/3739082 652ft Start time: 6:07 am/pm

GPS End-point: 0648065/3739085 680ft End time: 7:38 am/pm

Start Temp: _____ °C 76°F End Temp: _____ °C 78°F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
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8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/28/2011 Survey biologist(s): Tsegaye Mengistu tmengist@yahoo.com
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project North of Desert Center (5mi)
(project name and size, general location)

County: Riverside Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 217 ha Transect #: 71 Transect length: 1.25 mi

GPS Start-point: 0647828/3740403 668 ft Start time: 8:06 am/pm
(easting, northing, elevation in meters)

GPS End-point: 0647427/3740393 683 ft End time: 8:15 am/pm
(easting, northing, elevation in meters)

Start Temp: _____ °C 83°F End Temp: _____ °C 83°F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1						
2						
3						
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7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/28/2011 Survey biologist(s): TSEGAYE Mengistu tmengist@yahoo.com
(day, month, year) (name, email, and phone number) 714-875-6968

Site description: Desert Harvest Project North of Desert Center (5mi)
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd. off.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 217hec Transect #: 73 Transect length: 25mi

GPS Start-point: 0647417/3740420 687ft Start time: 8:20 am/pm
(easting, northing, elevation in meters)

GPS End-point: 0647822/3740418 666ft End time: 8:27 am/pm
(easting, northing, elevation in meters)

Start Temp: _____ °C 84°F End Temp: _____ °C 84°F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
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Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/28/2011 Survey biologist(s): Tsegaye Mengistu tsegaye@yahoo.com
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project North of Desert Center (5 mi)
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 217 ha Transect #: 75 Transect length: 2.5 mi

GPS Start-point: 0647821/3740444 664 ft Start time: 8:32 am/pm

GPS End-point: 0647427/3740436 683 ft End time: 8:40 am/pm
(easting, northing, elevation in meters) (easting, northing, elevation in meters)

Start Temp: _____ °C 89°F End Temp: _____ °C 85°F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/28/2011 Survey biologist(s): Tsegaye Mengistu tmengistu@yahoo.com
(day, month, year) (name, email, and phone number) 714-875-6960

Site description: Desert Harvest Project North of Desert Center (5mi)
(project name and size; general location)

County: River side Quad: _____ Location: Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 217hec Transect #: 77 Transect length: 0.25mi

GPS Start-point: 0647410 / 3740456 688ft Start time: 8:46 am/pm
(easting, northing, elevation in meters)

GPS End-point: 0647813 / 3740457 667ft End time: 8:54 am/pm
(easting, northing, elevation in meters)

Start Temp: _____ °C 85°F End Temp: _____ °C 86°F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
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USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/28/2011 Survey biologist(s): Tsegaye Mengistu tmengist@yahoo.com
(day, month, year) (name, email, and phone number) 714.875-

Site description: Desert Harvest Project North of Desert center (5mi)
(project name and size; general location)

County: Riverside Quad: _____ Location: off Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 217ha Transect #: 79 Transect length: 0.25mi

GPS Start-point: 0647820/3740482 670ft Start time: 8:59 am/pm
(easting, northing, elevation in meters)

GPS End-point: 0647424/3740482 689ft End time: 9:07 am/pm
(easting, northing, elevation in meters)

Start Temp: _____ °C 87°F End Temp: _____ °C 87°F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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7						
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Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
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4				
5				
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7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/28/2011 Survey biologist(s): Tsegaye Mengistu tmengist@yahoo.com
(day, month, year) (name, email, and phone number)
 714 975-6968

Site description: Desert Harvest Project North of Desert Center (5mi)
(project name and size; general location)

County: Riverside Quad: _____ Location: off Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 2 1/2 hec Transect #: 4W Transect length: 0.38 mi

GPS Start-point: 0647416/3739727 685ft Start time: 10:34 am/pm
(easting, northing, elevation in meters)

GPS End-point: 0648038/3739734 664ft End time: 10:50 am/pm
(easting, northing, elevation in meters)

Start Temp: _____ °C 93°F End Temp: _____ °C 93°F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1						
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8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
009 1	<u>0647989</u>	<u>3739732</u>	<u>burrow C=5</u>	<u>Class 5 Potential Burrow</u>
2				
3				
4				
5				
6				
7				
8				

Way Point 008 = Crucifixion Horn
0647969
3739746
 #4W

Page: _____ of _____

Transect number: _____

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/28/11 Survey biologist(s): Tsegaye Mengistu tnengist@yahoo.com
(day, month, year) (name, email, and phone number) 714-875-6

Site description: Desert Harvest Project North of Desert center (5mi)
(project name and size; general location)

County: Riverside Quad: _____ Location: off Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 217 ha Transect #: 2w Transect length: 038 mi

GPS Start-point: 0648038/3739717 667 ft Start time: 10:15 am/pm
(easting, northing, elevation in meters)

GPS End-point: 064407/3739709 684 ft End time: 10:25 am/pm
(easting, northing, elevation in meters)

Start Temp: _____ °C 92° End Temp: _____ °C 91° F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
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4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 5/26/2011 Survey biologist(s): Tsegaye Mengistu Tmengist@yahoo.com
(day, month, year) (name, email, and phone number) 714-875-6968

Site description: Desert Harvest Project North of Desert Center (5mile)
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257h Transect #: 30 Transect length: 1.0 mile

GPS Start-point: 649029 13740614 6249 ft Start time: 1:15 am/pm
(easting, northing, elevation in meters)

GPS End-point: 649422 13739985 6976 ft End time: 2:00 am/pm
(easting, northing, elevation in meters)

Start Temp: 32 °C 93°F End Temp: 38 °C 100°F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
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4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 26/5/2011 Survey biologist(s): Nathan Moorhatch
(day, month, year) (name, email, and phone number)

Site description: _____
(project name and size; general location)

County: Riverside Co. Quad: _____ Location: 5 mi. N of Desert Center on Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one (100% coverage) or Sampling Area size to be surveyed: 257 acres Transect #: 2 Transect length: _____

GPS Start-point: N 33.78725 W 115.40079 662 ft. Start time: 0815 (am)pm
(easting, northing, elevation in meters)

GPS End-point: N 33.78728 W 115.38368 618 ft. End time: 0851 (am)pm
(easting, northing, elevation in meters)

Start Temp: 25 °C End Temp: 86 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes: No or Unknown)	Existing tag # and color, if present
1						
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Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
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4				
5				
6				
7				
8				

Callisaurus dracon.

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 26/5/2011 Survey biologist(s): Nathan Moorhous
(day, month, year) (name, email, and phone number)

Site description: _____
(project name and size; general location)

County: Riverside Quad: _____ Location: 5 mi. N. of Desert Center on Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 7 Transect length: 1.4 mi.

GPS Start-point: N 33.78773 W 115.38369 Start time: 0905 (am)/pm
(easting, northing, elevation in meters)

GPS End-point: N 33.78769 W 115.40761 212 m End time: 1000 (am)/pm
(easting, northing, elevation in meters)

Start Temp: 86 °F End Temp: 88 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
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5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

Aspidooscelis tigris

Verdin

Spermophilis tereticauda

Ash-throated Flycatcher

Page: _____ of _____

Transect number: _____

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 26/5/2011 Survey biologist(s): Nathan Moorhous
(day, month, year) (name, email, and phone number)

Site description: _____
(project name and size; general location)

County: Riverside Quad: _____ Location: ~5 mi. W. of Desert Center on Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: (100% coverage) or Sampling Area size to be surveyed: 2.57 acres Transect #: 12 Transect length: _____

GPS Start-point: N 33.78814° W 115.40761° Start time: 10:13 am
(easting, northing, elevation in meters)

GPS End-point: N 33.78818° W 115.38369 626ft. End time: 11:07 am
(easting, northing, elevation in meters)

Start Temp: 88 °F End Temp: 92 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

Common Raven

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 26/5/2011 Survey biologist(s): Nathan Moorhach
(day, month, year) (name, email, and phone number)

Site description: _____
(project name and size; general location)

County: Riverside Quad: _____ Location: ~5 mi. N. of Desert Center
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 3.57 acres Transect #: 17 Transect length: 1.37 mi

GPS Start-point: N 33.78863 W 115.38369 191m
(easting, northing, elevation in meters)

Start time: 11:24 am pm

GPS End-point: N 33.78856 W 115.40755 210m
(easting, northing, elevation in meters)

End time: 12:29 am pm

- 15 min. for lunch

Start Temp: 92 °F End Temp: 92 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

Desert Iguana

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 26/5/2011 Survey biologist(s): Nathan Moorhake
(day, month, year) (name, email, and phone number)

Site description: _____
(project name and size; general location)

County: Riverside Quad: _____ Location: ~5 mi. N. of Desert Center
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 22 Transect length: _____

GPS Start-point: N 33.78903° W 115.40763° Start time: 12:36 am/pm
(easting, northing, elevation in meters)

GPS End-point: N 33.78912° W 115.39024° 197m End time: 13:05 am/pm
(easting, northing, elevation in meters)

Start Temp: 92 °F End Temp: 93 °C

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow; all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
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7				
8				

Lepus cal.

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 26/5/2011 Survey biologist(s): Nathan Moorhatch
(day, month, year) (name, email, and phone number)

Site description: _____
(project name and size; general location)

County: Riverside Quad: _____ Location: 5 mi. N. of Desert Center
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 27 Transect length: 1.0 mi

GPS Start-point: N 33.78952° W 115.39025° 649 ft. Start time: 13:15 am/pm
(easting, northing, elevation in meters)

GPS End-point: 11 S 0647'422 373 9957 210 m End time: 14:00 am/pm
(easting, northing, elevation in meters)

Start Temp: 93 °C/F End Temp: 100 °C/F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 26/5/2011 Survey biologist(s): Nathan Moorhake
(day, month, year) (name, email, and phone number)

Site description: _____
(project name and size; general location)

County: Riverside Quad: _____ Location: 5 mi. N. of Desert Center
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 Acres Transect #: 32 Transect length: _____

GPS Start-point: 115 0647421 3740005 Start time: 14:08 am/pm
(easting, northing, elevation in meters)

GPS End-point: _____ End time: 14:23 am/pm
(easting, northing, elevation in meters)

Start Temp: 100 °F End Temp: 101 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1						
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8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
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4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27/5/2011 Survey biologist(s): Nathan Moorhous
(day, month, year) (name, email, and phone number)

Site description: _____
(project name and size; general location)

County: Riverside Quad: _____ Location: 5 mi. N. of Desert Center on Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 2.57 acres Transect #: 32E Transect length: 0.6 mi.

GPS Start-point: 115 0648049 3748014 666ft. Start time: 0745 (am/pm)

GPS End-point: 115 0649033 3740035 633ft. End time: 0809 (am/pm)

Start Temp: 74 °F End Temp: 77 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
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7				
8				

Chionactis (tracks)
 WWDO

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27/5/2011 Survey biologist(s): Nathan Moorhous
(day, month, year) (name, email, and phone number)

Site description: _____
(project name and size; general location)

County: Riverside Quad: _____ Location: 5 mi. N. of Desert Center
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 37 Transect length: 1.0 mi

GPS Start-point: 115 0649028 3740084 Start time: 0823 am/pm
(easting, northing, elevation in meters)

GPS End-point: 115 0647421 3740054 End time: 0857 am/pm
(easting, northing, elevation in meters)

Start Temp: 77 °F End Temp: 83 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
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Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
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8				

BTGN
LBWO

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27/5/2011 Survey biologist(s): Nathan Moorhatch
(day, month, year) (name, email, and phone number)

Site description: Gravelly/Rocky washes & bajadas dominated by Ironwood, Blue Palo Verde, (creosote outside washes)
(project name and size; general location)

County: Riverside Quad: _____ Location: 5 mi. N. of Desert Center
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 600SW Transect length: 1.20 mi.

GPS Start-point: 115 0646435 3740044 218m Start time: 0930 am/pm
(easting, northing, elevation in meters)

GPS End-point: 115 0648044 3739122 End time: 1015 am/pm
(easting, northing, elevation in meters)

Start Temp: 84 °F End Temp: 86 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow, all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

ATFL
LENH
BTGN
VERD
TUVU

Aspidozelis t. tigris
Spermophilis tereticaudus
Dipsosaurus dorsalis
Callisaurus draconoides

Page: _____ of _____
Transect number: 600SW
(201)

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27/5/2011 Survey biologist(s): Nathan Moorhous
(day, month, year) (name, email, and phone number)

Site description: Gravelly/rocky washes & bajadas dominated by Ironwood, Blue Palo Verde, w/ creosote outside washes
(project name and size; general location)

County: Riverside Quad: _____ Location: 5 mi. N of Desert Center
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 4075W Transect length: 0.98 mi

GPS Start-point: 115 0648045 3739306 Start time: 10:20 am/pm
(easting, northing, elevation in meters)

GPS End-point: 115 0647034 3740041 End time: 10:50 am/pm
(easting, northing, elevation in meters)

Start Temp: 87 °F End Temp: 88 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

VERD

Spermophilis tereticaudus
Dipsosaurus dorsalis
Lepus californicus

Page: _____ of _____

Transect number: 4005W
 (201)

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27/5/2011 Survey biologist(s): Nathan Moorhatch
(day, month, year) (name, email, and phone number)

Site description: Gravelly/rocky washes & bajadas dominated by Ironwood, Catclaw, & Palo Verde, *Leosotea outcrops*
(project name and size; general location)

County: Riverside Quad: _____ Location: 5 mi. N. of Desert Center
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 2.57 acres Transect #: 200SW Transect length: 0.82 mi

GPS Start-point: 115 0647230 3740054 Start time: 10:55 am/pm
(easting, northing, elevation in meters)

GPS End-point: 115 0648050 3739508 End time: 11:17 am/pm
(easting, northing, elevation in meters)

Start Temp: 98 °F End Temp: 90 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

Spermophilis tereticaudus
Dipsosaurus dorsalis
 BTGN

Page: _____ of _____

Transect number: 200 SW

(201)

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27/5/2011 Survey biologist(s): Nathan Moorhatch
(day, month, year) (name, email, and phone number)

Site description: _____
(project name and size; general location)

County: Riverside Quad: _____ Location: 5 mi. N. of Desert Center on Kaiser Rd.
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 51 Transect length: 0.75 mi.

GPS Start-point: 115 0647424 3740196 Start time: 12:10 am/pm pm
(easting, northing, elevation in meters)

GPS End-point: 115 0648628 3740213 203m End time: 12:38 am/pm pm
(easting, northing, elevation in meters)

Start Temp: 96 °F End Temp: 100 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160 mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1	<u>115 0648477</u>	<u>3740212</u>	<u>Class 5 Burrow</u>	<u>4 1/2 in. H. x ~ 6 in. wide (Arillo's Pic's - 40)</u>
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27/5/2011 Survey biologist(s): Nathan Moorhatch
(day, month, year) (name, email, and phone number)

Site description: _____
(project name and size; general location)

County: Riverside Quad: _____ Location: 5 mi. N. of Desert Center
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 53 Transect length: 0.75 mi

GPS Start-point: 115 0648627 3740237 Start time: 12:48 am
(easting, northing, elevation in meters) (pm)

GPS End-point: 115 0647422 3740214 End time: 13:23 am
(easting, northing, elevation in meters) (pm)

Start Temp: 100 °F End Temp: 102 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27/5/2011 Survey biologist(s): Nathan Moorhous
(day, month, year) (name, email, and phone number)

Site description: _____
(project name and size; general location)

County: Riverside Quad: _____ Location: 5 mi. N. of Desert Center
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 56 Transect length: 0.75 mi.

GPS Start-point: 115 647422 3740247 212m Start time: 13:28 am/pm
(easting, northing, elevation in meters)

GPS End-point: 115 0648627 3740267 203m End time: 13:57 am/pm
(easting, northing, elevation in meters)

Start Temp: 102 °F End Temp: 101 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 26, 2011 Survey biologist(s): Teo Rado
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project north of Desert Center (5 mi N)
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Road - south end of parcel
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 1 Transect length: 3/4 mi

GPS Start-point: 115 0648040 / 3739704 662 ft Start time: 8:15 am pm
(easting, northing, elevation in meters)

GPS End-point: 115 0649692 / 3739735 618 ft End time: 8:51 am pm
(easting, northing, elevation in meters)

Start Temp: 25 °C (77°F) End Temp: 86 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1		<u>None</u>				
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1	<u>115 0649198</u>	<u>3739724</u>	<u>Potential DT burrow</u>	<u>Class 5 (good - pot. burrow) WP003 Photo 1</u>
2				
3				
4				
5				
6				
7				
8				

Long-tailed GS
kit fox tracks



USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 26, 2011 Survey biologist(s): Ted Rando
(day, month, year) (name, email, and phone number)

Site description: Desert Henshaw Project north of Desert Center (CAIN)
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Ranch near south end of parcel
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 aca Transect #: 6 Transect length: 1.4 mi

GPS Start-point: 115 0649646 / 3739784 618 ft Start time: 9:05 am/pm
(easting, northing, elevation in meters)

GPS End-point: 115 0647428 / 3739745 695 ft End time: 10:00 am/pm
(easting, northing, elevation in meters)

Start Temp: 86 °F End Temp: 88 °F

Live Tortoises

Detection number	GPS location		Time	Tortoise location (in burrow, all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
	Easting	Northing				
1		<u>None</u>				
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location		Type of sign (burrows, scats, carcass, etc)	Description and comments
	Easting	Northing		
1		<u>None</u>		
2				
3				
4				
5				
6				
7				
8				

*Zebra-tailed lizard
 ash-throated flycatcher
 round-tailed ground squirrel
 creosote thorn WSP CRUX 115 0647967
 (1 plant) 3739747 Photo 2*

Page: 1 of 1

Transect number: 6

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 26, 2011 Survey biologist(s): Teo Rado
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project 6 mi N Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Ranch area - near south end of parcel
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 11 Transect length: 1.4 mi

GPS Start-point: 1150647427 / 3739798 692 ft Start time: 10:13 am pm
(easting, northing, elevation in meters)

GPS End-point: 1150649641 / 3739835 626 ft End time: 11:07 am pm
(easting, northing, elevation in meters)

Start Temp: 88 °F End Temp: 92 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1		<u>None</u>				
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1		<u>None</u>		
2				
3				
4				
5				
6				
7				
8				

RTGS
 Ash-throated flycatcher
 zebra-tailed

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 26, 2011 Survey biologist(s): Ted Rado
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project 6 mi N Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd area - near southern end of parcel
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 16 Transect length: 1.4 mi

GPS Start-point: 1150649640 / 3739884 619 ft Start time: 11:24 am pm
(easting, northing, elevation in meters)

GPS End-point: 1150647746 / 3739845 691 ft End time: 12:29 am pm
(easting, northing, elevation in meters)

Start Temp: 92 °F End Temp: 92 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1		<u>None</u>				
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1		<u>None</u>		
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 26, 2011 Survey biologist(s): Ted Rao
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project 6 mi N Desert Center
(project name and size; general location)

County: Riverside Quad: Location: Kaiser Road Area - south of
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 Acres Transect #: 21 Transect length: 1.00 mi

GPS Start-point: 11S 0647423 / 3739895 694 ft Start time: 12:36 am/pm
(easting, northing, elevation in meters)

GPS End-point: 11S 0649034 / 3739922 649 ft End time: 13:05 am/pm
(easting, northing, elevation in meters)

Start Temp: 92 °F End Temp: 93 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1		<u>None</u>				
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1		<u>None</u>		
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 26, 2011 Survey biologist(s): Ted Kado
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project 6 mi N Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser Rd Area - Southern portion of parcel
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 Ac. Transect #: 26 Transect length: 1.0 MI

GPS Start-point: 115 6649029 / 3739973 649 ft Start time: 1:15 am/pm pm
(easting, northing, elevation in meters)

GPS End-point: 115 0647421 / 3739945 696 ft End time: 2:00 am/pm
(easting, northing, elevation in meters)

Start Temp: 93 °F End Temp: 100 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1		<u>None</u>				
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1		<u>None</u>		
2				
3				
4				
5				
6				
7				
8				

black-tailed jackrabbit
desert sparrow
western whiptail

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 26, 2011 Survey biologist(s): Ted Rado
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project 6 mi N Dent Center
(project name and size; general location)

County: Riverside Quad: _____ Location: Kaiser RV Area - southern portion of parcel
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 ac Transect #: 31 Transect length: 0.4 miles

GPS Start-point: 11S 0647420 / 3739995 696 Ft Start time: 2:08 am/pm
(easting, northing, elevation in meters)

GPS End-point: 11S 0648051 / 3740025 End time: 2:19 pm am/pm
(easting, northing, elevation in meters)

Start Temp: 100 °F End Temp: 100 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1	<u>None</u>					
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1	<u>None</u>			
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 27, 2011 Survey biologist(s): Ted Rado
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project 6 mi N Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: off Knier Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 31E Transect length: 0.8 mi

GPS Start-point: 115 0648051 / 3740005 666 ft Start time: 7:45 AM (am/pm)
(easting, northing, elevation in meters)

GPS End-point: 115 0649029 / 3740025 633 ft End time: 8:08 (am/pm)
(easting, northing, elevation in meters)

Start Temp: 77 °F End Temp: 77 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

Shovel-nosed snake tracks

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 27, 2011 Survey biologist(s): Ted Rado
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project 6 mi N Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: off Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 36 Transect length: 1.00 mi

GPS Start-point: 115 0649028 / 3740075 639 ft Start time: 8:20 ampm
(easting, northing, elevation in meters)

GPS End-point: 115 0647425 / 3740043 690 ft End time: 8:57 ampm
(easting, northing, elevation in meters)

Start Temp: 77 °F End Temp: 83 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1		<u>None</u>				
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1		<u>None</u>		
2				
3				
4				
5				
6				
7				
8				

Shed-tailed gnatcatcher

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 27, 2011 Survey biologist(s): Ted Kaulo
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project 6 mi N Desert Center
(project name and size; general location)

County: Riverside Quad: Location: off Kaiser Rd Buffer Zone
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: B2006 Transect length: 2.5 mi

GPS Start-point: 115 0648060 / 3789505 672 ft Start time: 9:30 am pm
(easting, northing, elevation in meters)

GPS End-point: 115 0648035 / 37 46503 667 ft End time: 10:46 am pm
(easting, northing, elevation in meters)

Start Temp: 84 °F End Temp: 93 °F

Live Tortoises

Detection number	GPS location Easting Northing	Time	Tortoise location (in burrow, all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1	<u>None</u>				
2					
3					
4					
5					
6					
7					
8					

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing	Type of sign (burrows, scats, carcass, etc)	Description and comments
1	<u>None</u>		
2			
3			
4			
5			
6			
7			
8			

desert iguana rebrat tail (12m)
 whiptail
 RTGS
 ash-throated flycatcher

Page: 1 of 1

Transect number: 201
200 M E

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 27, 2011 Survey biologist(s): TCJ Rado
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project 6 mi N Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: off Kasev Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 400E Transect length: ± 3.25 mi

GPS Start-point: N 33.78355 / W -115.40084 Start time: 11:55 ampm
(easting, northing, elevation in meters)

GPS End-point: N 33.79774 / W -115.40173 End time: 1:20 am/pm
(easting, northing, elevation in meters)

Start Temp: 94 °F End Temp: 98 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1	<u>None</u>					
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
<u>10478</u>	<u>41</u>	<u>115.39073</u>	<u>ch 5 Burrow</u>	<u>Pot. Burrow for DT. Good condition - no sign. 6" W x 4" H x 10" L WPOSS. Single photo</u>



USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 18, 2011 Survey biologist(s): Ted Rado
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project 6 mi N Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: off Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one 100% coverage or Sampling Area size to be surveyed: 257 acres Transect # 600E Transect length: 2

GPS Start-point: 115 0647937/3741075 652 ft Start time: 6:09 am pm
(easting, northing, elevation in meters)

GPS End-point: 115 0648066/3739091 658 ft End time: 7:38 am pm
(easting, northing, elevation in meters)

Start Temp: 76 °F End Temp: 78 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1	<u>None</u>					
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1	<u>None</u>			
2				
3				
4				
5				
6				
7				
8				

NOTE: Long transect divided into 2 segments
 I walked the "northern" heading east for about 2 miles, starting at the junction w/ Kaiser Road. Then walked out with the other biologist (Siggy), ending at Kaiser Road at the intersection of the "southern" segment.

Page: 1 of 1

Transect number: 600E

201

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 27, 2011 Survey biologist(s): Ted Rado
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project 6 mi N Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: off Kaisu Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 60 Transect length: 0.75 mi

GPS Start-point: 115 0648629 13740305 670 ft Start time: 2:05 am pm
(easting, northing, elevation in meters)

GPS End-point: 115 0647423 13740285 706 ft End time: 2:28 am pm
(easting, northing, elevation in meters)

Start Temp: 101 °F End Temp: 99 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1		<u>None</u>				
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1		<u>None</u>		
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 27, 2011 Survey biologist(s): Ted Rado
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project 6 mi N Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: off Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 62 Transect length: 0.25

GPS Start-point: 115 0647423 / 3740307 706 ft Start time: 2:40 am/pm pm
(easting, northing, elevation in meters)

GPS End-point: 115 0647823 / 3740313 687 ft End time: 2:50 am/pm pm
(easting, northing, elevation in meters)

Start Temp: 99 °F End Temp: 99 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1		<u>None</u>				
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1		<u>None</u>		
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 27, 2011 Survey biologist(s): Ted Kudo
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project 6 mi N Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: off Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 64 Transect length: 0.25 mi

GPS Start-point: 115 0647825 / 3740333 687ft Start time: 2:54 am/pm pm
(easting, northing, elevation in meters) (easting, northing, elevation in meters)

GPS End-point: 115 0647723 / 3740325 700ft End time: 3:01 am/pm pm
(easting, northing, elevation in meters) (easting, northing, elevation in meters)

Start Temp: 99 °F End Temp: 101 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1	<u>None</u>					
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1	<u>None</u>			
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 27, 2011 Survey biologist(s): Teri Kado
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project 6 mi N Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: off Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 66 Transect length: 0.25 mi

GPS Start-point: 115 6647422 / 3740346 700ft Start time: 3:08 am/pm pm
(easting, northing, elevation in meters)

GPS End-point: 115 0647826 / 3740353 686ft End time: 3:15 am/pm pm
(easting, northing, elevation in meters)

Start Temp: 101 °F End Temp: 101 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1		<u>None</u>				
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1		<u>None</u>		
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 27, 2011 Survey biologist(s): Ted Robb
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project 6 mi N Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: off kaiser rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: _____ Transect #: 68 Transect length: 0.25

GPS Start-point: 1150847826/3740377 686 ft Start time: 3:20 am/pm pm
(easting, northing, elevation in meters)

GPS End-point: 1150647421/3740368 697 ft End time: 3:27 am/pm pm
(easting, northing, elevation in meters)

Start Temp: 101 °F End Temp: 103 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1	<u>None</u>					
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1	<u>none</u>			
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May Survey biologist(s): Ted Raso
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project 6 mi N Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: off Kiefer Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 ac. Transect #: 70 Transect length: 0.25 mi

GPS Start-point: 115 06477423 / 3746386 697 ft Start time: 3:34 am/pm pm
(easting, northing, elevation in meters)

GPS End-point: 115 0647824 / 3746394 692 ft End time: 3:42 am/pm pm
(easting, northing, elevation in meters)

Start Temp: 103 °F End Temp: 103 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1	<u>None</u>					
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1	<u>None</u>			
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 28, 2011 Survey biologist(s): Ted Rado
(day, month, year) (name, email, and phone number)

Site description: Desert Hot Springs 6 mi N Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: OFF Kaiser N
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 72 Transect length: 0.25 mi

GPS Start-point: 115 0647824 / 3740413 668 ft Start time: 8:06 ampm
(easting, northing, elevation in meters)

GPS End-point: 115 0647425 / 3740408 683 ft End time: 8:15 ampm
(easting, northing, elevation in meters)

Start Temp: 83 °F End Temp: 83 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1	<u>None</u>					
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1	<u>None</u>			
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 28, 2011 Survey biologist(s): Ted Rado
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project 6 mi N Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: Off Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one 100% coverage for Sampling Area size to be surveyed: 257 acres Transect #: 74 Transect length: 0.25 mi

GPS Start-point: 1150647423 / 3740426 687 ft Start time: 8:20 ampm
(easting, northing, elevation in meters)

GPS End-point: 1150647825 / 3740480 666 ft End time: 8:27 ampm
(easting, northing, elevation in meters)

Start Temp: 83 °F End Temp: 83 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1	<u>none</u>					
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1	<u>none</u>			
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 28, 2011 Survey biologist(s): Ted Rado
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project 6 mi N Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: off kaisw Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: (100%) coverage or Sampling Area size to be surveyed: 257 acres Transect #: 76 Transect length: 0.25 mi

GPS Start-point: 11S 0647821 / 3740451 664 ft Start time: 8:32 ampm
(easting, northing, elevation in meters)

GPS End-point: 11S 0647821 / 3740447 683 ft End time: 8:39 ampm
(easting, northing, elevation in meters)

Start Temp: 82 °F End Temp: 85 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1	<u>none</u>					
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1	<u>none</u>			
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 28, 2011 Survey biologist(s): Tej Redo
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project 6 mi N Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: off Kaiser Road
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 78 Transect length: 0.35 mi

GPS Start-point: 115 0647422 / 3740467 688ft Start time: 8:46 am/pm
(easting, northing, elevation in meters)

GPS End-point: 115 0647824 / 3740473 667ft End time: 8:54 am/pm
(easting, northing, elevation in meters)

Start Temp: 85 °F End Temp: 85 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes: No or Unknown)	Existing tag # and color, if present
1	<u>NONE</u>					
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1	<u>NONE</u>			
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 28, 2011 Survey biologist(s): Ted Rado
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project 6 mi N Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: off Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling, Area size to be surveyed: 257 acres Transect #: 80 Transect length: 0.25 mi

GPS Start-point: 1150647822 / 3740494 670 ft Start time: 8:58 am pm
(easting, northing, elevation in meters)

GPS End-point: 1150647427 / 3740486 684 ft End time: 9:06 am pm
(easting, northing, elevation in meters)

Start Temp: 87 °F End Temp: 87 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1	<u>None</u>					
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1	<u>None</u>			
2				
3				
4				
5				
6				
7				
8				

NOTE: Took photo of NE corner boundary stake

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 28, 2011 Survey biologist(s): Ted Rado
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project 6 mi N Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: off Kairo Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: _____ Transect #: 10W Transect length: 0.38 mi

GPS Start-point: 115 0647426 / 3739783 664 ft Start time: 9:40 am pm
(easting, northing, elevation in meters)

GPS End-point: 115 0647426 / 3739783 686 ft End time: 9:54 am pm
(easting, northing, elevation in meters)

Start Temp: 91.7 °F End Temp: 92 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1	<u>None</u>					
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1	<u>1150647841</u>	<u>3739800</u>	<u>clay 5 burrow</u>	<u>Fair condition - no sign - possibly DT</u> <u>Photo taken WP006</u>



USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 28, 2011 Survey biologist(s): Ted Rado
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project 6 mi N Desert Center
(project name and size; general location)

County: Riverside Quad: _____ Location: off Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 1W Transect length: 0.38 mi

GPS Start-point: 1150648042 / 3739706 666 ft Start time: 10:15 am/pm
(easting, northing, elevation in meters)

GPS End-point: 1150647427 / 3739697 684 ft End time: 10:25 am/pm
(easting, northing, elevation in meters)

Start Temp: 92 °F End Temp: 92 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1	None					
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1	None			
2				
3				
4				
5				
6				
7				
8				

NOTE: 2 crucifixion thorns just south of boundary. WPO10
 1150647981 / 3739662
 Photo

Page: 1 of 1

Transect number: 1W

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 28, 2011 Survey biologist(s): Teal Rade
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Project
(project name and size; general location)

County: Riverside Quad: _____ Location: off Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 acres Transect #: 3W Transect length: 0.38 mi

GPS Start-point: 115 0647425/373918 685 ft Start time: 10:34 am pm
(easting, northing, elevation in meters)

GPS End-point: 1150648041/3739729 664 ft End time: 10:50 am pm
(easting, northing, elevation in meters)

Start Temp: 93 °F End Temp: 93 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

WP008 - 1 crucifixion thru
 115 0647969
 3739746 (Transect 4W)
 1 photo

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: May 28, 2011 Survey biologist(s): Ted Rado + Tsegaye Mengistu
(day, month, year) (name, email, and phone number)

Site description: Desert Harvest Rabbit
(project name and size; general location)

County: Livestock Quad: _____ Location: off Kaiser Rd
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: _____ Transect #: 5W Transect length: 0.38

GPS Start-point: 1150648637 / 3739745 663 ft Start time: 11:02 am
(easting, northing, elevation in meters)

GPS End-point: 1150647727 / 3739736 684 ft End time: 11:13 am
(easting, northing, elevation in meters)

Start Temp: 93 °F End Temp: 93 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1	<u>none</u>					
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1	<u>none</u>			
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 26 MAY 11 Survey biologist(s): michael.wilcox@amec.com
(day, month, year) (name, email, and phone number)

Site description: DESERT HARVEST, 257 ACRES, ~ 5 mi N DESERT CTR.
(project name and size, general location)

County: RIVERSIDE Quad: VICTORY PASS Location: TAS RISE S26427
(UTM coordinates, lat-long, and/or TRS, map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 AC. Transect #: 3 Transect length: 1.5 mi

GPS Start-point: N33.78735°, W115.40079, 662' Start time: 0815 am/pm
(easting, northing, elevation in meters)

GPS End-point: N33.78735, W115.38367, 618' End time: 0851 am/pm
(easting, northing, elevation in meters)

Start Temp: 80 °F End Temp: 86 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow, all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 26 MAY 11 Survey biologist(s): michael.wilcox@amec.com
(day, month, year) (name, email, and phone number)

Site description: DESERT HARVEST, 257 ACRES, ~ 5 mi N DESERT CTR.
(project name and size, general location)

County: RIVERSIDE Quad: VICTORY PASS Location: T45 R15E S26427
(UTM coordinates, lat-long, and/or TRS, map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257AC. Transect #: 8 Transect length: 1.5mi

GPS Start-point: N33.78783° W115.38370°, 695' Start time: 0900 am/pm
(easting, northing, elevation in meters)

GPS End-point: N33.78783° W115.40759°, 695' End time: 1000 am/pm
(easting, northing, elevation in meters)

Start Temp: 86 °F End Temp: 88 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 26 MAY 11 Survey biologist(s): michael.wilcox@amec.com
(day, month, year) (name, email, and phone number)

Site description: DESERT HARVEST, 257 ACRES, ~ 5 mi N DESERT CTR.
(project name and size, general location)

County: RIVERSIDE Quad: VICTORY PASS Location: T4S, R15E, S26, 27
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 AC. Transect #: 13 Transect length: 1.5 mi

GPS Start-point: N33.78825°, W115.40764°, 615' Start time: 1013 am/pm
(easting, northing, elevation in meters)

GPS End-point: N33.78825°, W115.38358°, 626' End time: 1107 am/pm
(easting, northing, elevation in meters)

Start Temp: 88 °F End Temp: 92 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow, all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1	<u>W115.38881°</u>	<u>N33.78827°</u>	<u>POTENTIAL DT BURROW</u>	<u>CLASS 5, ASSOCIATED W/ LARGE SMALL MAMMAL BURROW COMPLEX (GPS PT. "ROTBI")</u>
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 26 MAY 11 Survey biologist(s): MICHAEL.WILCOX@AMEC.COM
(day, month, year) (name, email, and phone number)

Site description: DESERT HARVEST, 257 ACRES, ~ 5 mi N DESERT CTR.
(project name and size, general location)

County: RIVERSIDE Quad: VICTORY PASS Location: TAS, RISE S 26427
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 AC. Transect #: 18 Transect length: 1.4 mi

GPS Start-point: 0649638, 3739904, 619' Start time: 11:24 am pm
(easting, northing, elevation in meters)

GPS End-point: 0647424, 3739865, 691' End time: 12:29 am pm
(easting, northing, elevation in meters)

Start Temp: 92 °F

End Temp: 92 °F

Live Tortoises

Detection number	GPS location		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
	Easting	Northing				
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location		Type of sign (burrows, scats, carcass, etc)	Description and comments
	Easting	Northing		
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 26 MAY 11 Survey biologist(s): michael.wilcox@amec.com
(day, month, year) (name, email, and phone number)
 Site description: DESERT HARVEST, 257 ACRES, ~ 5 mi N DESERT CTR.
(project name and size, general location)
 County: RIVERSIDE Quad: VICTORY PASS Location: T4S R15E S26427
(UTM coordinates, lat-long, and/or TRS, map datum)
 Circle one: 100% coverage or Sampling Area size to be surveyed: 257 AC. Transect #: 23 Transect length: 1 mi
 GPS Start-point: 0649030, 3739943, 691' Start time: 12:36 am/pm am
(easting, northing, elevation in meters)
 GPS End-point: 0647423, 3739915, 650' End time: 1:03 am/pm am
(easting, northing, elevation in meters)
 Start Temp: 92 °F End Temp: 93 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes: No or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 26 MAY 11 Survey biologist(s): michael.wilcox@amec.com
(day, month, year) (name, email, and phone number)

Site description: DESERT HARVEST, 257 ACRES, ~ 5 mi N DESERT CTR.
(project name and size, general location)

County: RIVERSIDE Quad: VICTORY PASS Location: T45 R15E S26427
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 AC. Transect #: 28 Transect length: 1 mi

GPS Start-point: 0649030, 3739993, 649' Start time: 1:15 am/pm am
(easting, northing, elevation in meters)

GPS End-point: 0647422, 3739965, 697' End time: 2:00 am/pm am
(easting, northing, elevation in meters)

Start Temp: 93 °F End Temp: 100 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 26 MAY 11 Survey biologist(s): michael.wilcox@amec.com
(day, month, year) (name, email, and phone number)

Site description: DESERT HARVEST, 257 ACRES, ~ 5 mi N DESERT CTR.
(project name and size, general location)

County: RIVERSIDE Quad: VICTORY PASS Location: TAS, R15E S26427
(UTM coordinates, lat-long, and/or TRS, map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 AC. Transect #: 33w Transect length: 0.4 mi

GPS Start-point: 0647421, 3740015, 697' Start time: 2:08 am ☒ pm
(easting, northing, elevation in meters)

GPS End-point: 0648048, 3740027 End time: 2:30 am ☒ pm
(easting, northing, elevation in meters)

Start Temp: 100 °F End Temp: 100 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCE >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27 MAY 11 Survey biologist(s): michael.wilcox@amec.com
(day, month, year) (name, email, and phone number)

Site description: DESERT HARVEST, 257 ACRES, ~ 5 mi N DESERT. CTR.
(project name and size, general location)

County: RIVERSIDE Quad: VICTORY PASS Location: TAS RISE S26427
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 AC. Transect #: 33E transect length: .6 mi

GPS Start-point: 0648047, 3740026, 666' Start time: 7:45 am/pm
(easting, northing, elevation in meters)

GPS End-point: 0649028, 3740043, 633' End time: 8:08 am/pm
(easting, northing, elevation in meters)

Start Temp: 74 °F End Temp: 77 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27 MAY 11 Survey biologist(s): michael.wilcox@amec.com
(day, month, year) (name, email, and phone number)

Site description: DESERT HARVEST, 257 ACRES, ~ 5 mi N DESERT CTR.
(project name and size, general location)

County: RIVERSIDE Quad: VICTORY PASS Location: T45, R15E, S26, T27
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 AC. Transect #: 38 Transect length: 1 MI

GPS Start-point: 0649028, 3740093, 637' Start time: 8:20 am/pm
(easting, northing, elevation in meters)

GPS End-point: 0647423, 3740065, 690' End time: 8:57 am/pm
(easting, northing, elevation in meters)

Start Temp: 77 °F End Temp: 83 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No, or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27 MAY 11 Survey biologist(s): Michael Wilcox @ amec.com
(day, month, year) (name, email, and phone number)

Site description: DESERT HARVEST, 257 ACRES, ~ 5 mi N DESERT CTR.
(project name and size, general location)

County: RIVERSIDE Quad: VICTORY PASS Location: TAS, RISE S 26427
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 AC. Transect #: 41 Transect length: .75 mi

GPS Start-point: 0647420, 3740095, 210 M. Start time: 9:15 am/pm
(easting, northing, elevation in meters)

GPS End-point: 0648628, 3740016, 199 M. End time: 9:50 am/pm
(easting, northing, elevation in meters)

Start Temp: _____ °C End Temp: _____ °C

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27 MAY 11 Survey biologist(s): michael.wilcox@amec.com
(day, month, year) (name, email, and phone number)

Site description: DESERT HARVEST, 257 ACRES, ~ 5 mi N DESERT CTR.
(project name and size, general location)

County: RIVERSIDE Quad: VICTORY PASS Location: T45, R15E S26427
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 AC. Transect #: 43 Transect length: .75 mi

GPS Start-point: 0648630, 3740138 Start time: 9:55 am
(easting, northing, elevation in meters)

GPS End-point: 0647423, 3740116, 210 m. End time: 10:35 am
(easting, northing, elevation in meters)

Start Temp: 86 °F End Temp: 89 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL <u>>160-mm?</u> (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27 MAY 11 Survey biologist(s): Michael Wilcox @ amec.com
(day, month, year) (name, email, and phone number)

Site description: DESERT HARVEST, 257 ACRES, ~ 5 mi N DESERT CTR.
(project name and size, general location)

County: RIVERSIDE Quad: VICTORY PASS Location: TAS RISE S 26427
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257AC. Transect #: 45 Transect length: 75 mi

GPS Start-point: 0647423, 3740135, 210M. Start time: 10:40 am/pm
(easting, northing, elevation in meters)

GPS End-point: 0648629, 3740157, 197M. End time: 11:05 am/pm
(easting, northing, elevation in meters)

Start Temp: 89 °F End Temp: 90 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1	0647814	3740141	BURROW (PAUSET ~12" d)	CLASS 5, POSS. DT, GOOD COND. ~7"W X 3"T X 12"D "DTB CLASS 5" 2 PICS GPS SIDE
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27 MAY 11 Survey biologist(s): michael.wilcox@amec.com
(day, month, year) (name, email, and phone number)

Site description: DESERT HARVEST, 257 ACRES, ~ 5 mi N DESERT CTR.
(project name and size; general location)

County: RIVERSIDE Quad: VICTORY PASS Location: T45 R15E S26 27
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 AC. Transect #: 47 Transect length: .75 mi

GPS Start-point: 0648628, 3740176, 197 m. Start time: 11:15 ☒ am ☐ pm
(easting, northing, elevation in meters)

GPS End-point: 0647425, 3740155, 209 m. End time: 12:04 ☐ am ☒ pm
(easting, northing, elevation in meters)

Start Temp: 90 °F End Temp: 96 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes, No or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1	<u>0648537</u>	<u>3740177</u>	<u>BURROW</u>	<u>CLASS 5, ~ 5" W X 2.5" T X ?</u> <u>"Dtbclass 5a (~ 2 pics - GPS top)"</u>
2				
3				
4				
5				
6				
7				
8				

USFWS 2010 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Please submit a completed copy to the action agency and local USFWS office within 30-days of survey completion

Date of survey: 27 MAY 11 Survey biologist(s): michael.wilcox@amec.com
(day, month, year) (name, email, and phone number)

Site description: DESERT HARVEST, 257 ACRES, ~ 5 mi N DESERT CTR.
(project name and size, general location)

County: RIVERSIDE Quad: VICTORY PASS Location: TAS, R15E, S26&27
(UTM coordinates, lat-long, and/or TRS; map datum)

Circle one: 100% coverage or Sampling Area size to be surveyed: 257 AC. Transect #: 49 Transect length: .75 mi

GPS Start-point: 0647422, 3740174 Start time: 12:10 am/pm am
(easting, northing, elevation in meters)

GPS End-point: 0648629, 3740196, 203m. End time: 12:38 am/pm pm
(easting, northing, elevation in meters)

Start Temp: 96 °F End Temp: 100 °F

Live Tortoises

Detection number	GPS location Easting Northing		Time	Tortoise location (in burrow: all of tortoise beneath plane of burrow opening, or not in burrow)	Approx MCL >160-mm? (Yes: No or Unknown)	Existing tag # and color, if present
1						
2						
3						
4						
5						
6						
7						
8						

Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting Northing		Type of sign (burrows, scats, carcass, etc)	Description and comments
1				
2				
3				
4				
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8				

Appendix C.3

Final Spring 2010 Focused Special-Status Plant Species Surveys

FINAL
SPRING 2010 FOCUSED SPECIAL-STATUS PLANT SPECIES SURVEYS
DESERT HARVEST PROJECT
RIVERSIDE COUNTY, CALIFORNIA

Submitted to:
Aspen Environmental Group
235 Montgomery Street, No.935
San Francisco CA 94104

Submitted by:
AMEC Earth & Environmental, Inc.
3120 Chicago Avenue, Suite 110
Riverside, California
(951) 369-8060
Contact: Shari Norton
shari.norton@amec.com

15 April 2011
AMEC 1055400425

EXECUTIVE SUMMARY

AMEC Earth & Environmental, Inc. (AMEC) conducted surveys for special-status plant species between 12-17 April and 7 May 2010 for the proposed Desert Harvest Project, located in unincorporated eastern Riverside County, California. The 1,057-acre project site, which is located on lands administered by the Bureau of Land Management (BLM), is proposed to be the location of a 100-150 mega-watt photovoltaic panel solar power plant. This report, contracted to AMEC by Aspen Environmental Group (Aspen), presents the results of AMEC's field surveys for rare plants that have potential to occur within the area.

Based upon review of available literature and database, and local experts, 19 special-status plant species were identified to have the potential to occur within the vicinity of the proposed project (Appendix A). However, based on literature review and field survey results, these species are considered unlikely to occur primarily due to lack of suitable habitat, or if suitable habitat was present within the site, the species was unlikely to occur as it was not identified during the blooming period when it would be most identifiable.

One federally listed endangered plant, Coachella Valley milk vetch (*Astragalus lentiginosus* var. *coachellae*), has been reported from the project vicinity. No state or federally listed threatened or endangered species or BLM-designated sensitive species were located on the project site.

Two special-status plant species were observed during the focused survey: Emory's crucifixion thorn (*Castela emoryi*), and Utah vine milkweed (*Funastrum* [= *Cynanchum*] *utahense*). Emory's crucifixion is on CNPS List 2.3 (rare, threatened, or endangered in California, but more common elsewhere). Two individuals of this species were observed within the southwestern portion of the project area within Creosote Bush-White Burr Sage Scrub habitat. Utah vine milkweed is on CNPS List 4.2 (limited distribution; watch list). Three individuals of Utah vine milkweed were observed within the western portion of the project area within Creosote Bush-White Burr Sage Scrub habitat. Individuals of both species appeared healthy, with no evidence of drought stress, chlorosis, necrosis, or herbivory.

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ACRONYMS AND ABBREVIATIONS

ACEC	Area of Critical Environmental Concern
amsl	above mean sea level
Aspen	Aspen Environmental Group
BLM	Bureau of Land Management
CDFG	California Department of Fish and Games
CESA	California Endangered Species Act
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
enXco	enXco Development Corporation
ESA	Federal Endangered Species Act
ft	feet
GIS	Geographical Information System
m	meters
NECO	Northern and Eastern Colorado Desert Coordinated Management Plan (BLM and CDFG, 2002)
GPS	Global Positioning System
MW	mega-watt
PV	photovoltaic

1.0 INTRODUCTION

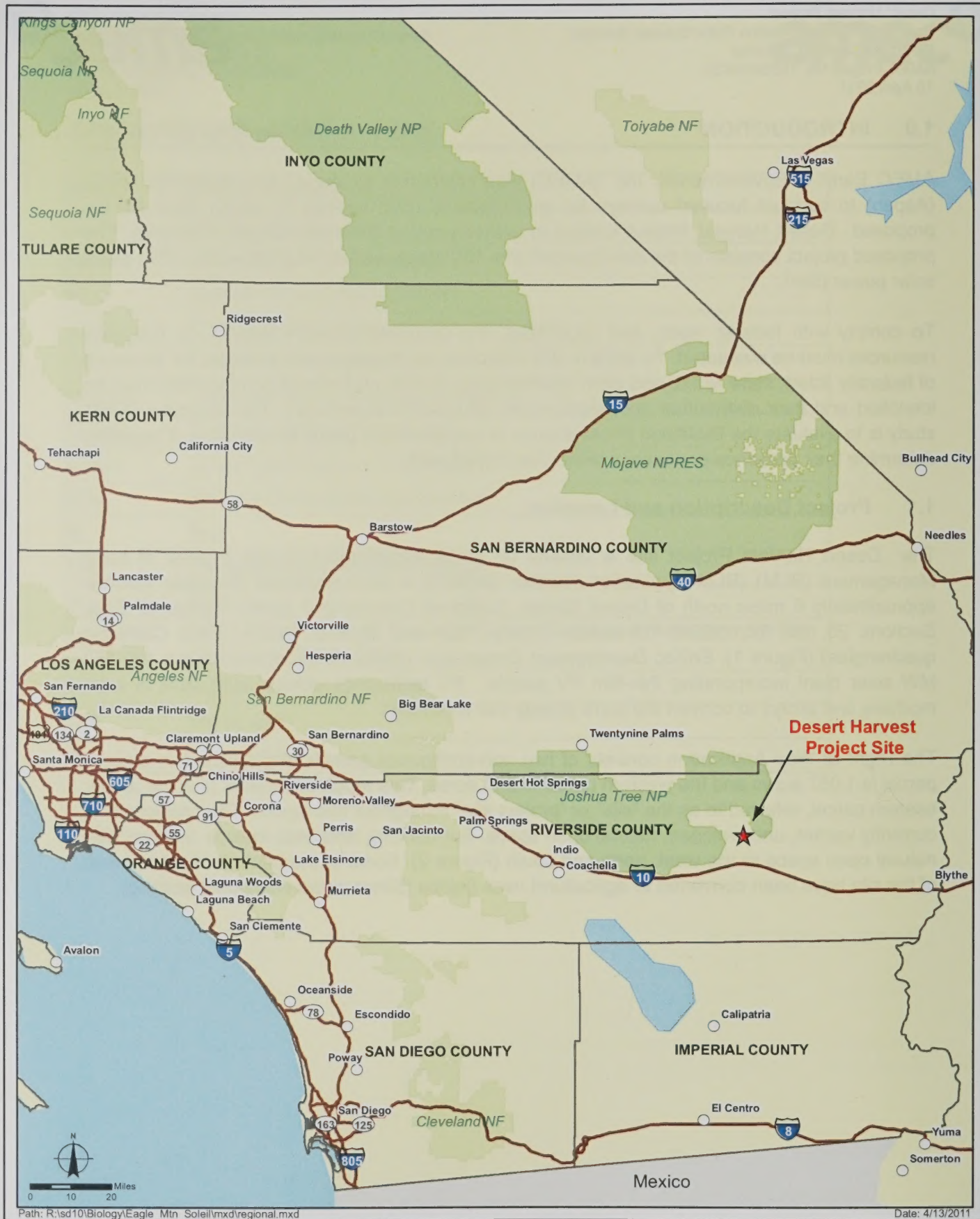
AMEC Earth & Environmental, Inc. (AMEC) was contracted by Aspen Environmental Group (Aspen) to conduct focused surveys for special-status plant species in spring 2010 for the proposed Desert Harvest Project located in unincorporated Riverside County California. The proposed project consists of the development of a 150 mega-watt (MW) photovoltaic (PV) panel solar power plant.

To comply with federal, state, and local laws, the proposed project's effects on biological resources must be evaluated. To achieve this objective, the presence and potential for presence of federally listed, state-listed, and other special-status plants, and natural communities must be identified and their distribution and approximate abundance determined. The objective of this study is to evaluate the likelihood of occurrence of special-status plants species and, if possible, determine their presence or absence within the project area.

1.1 Project Description and Location

The Desert Harvest Project site is located on lands administered by the Bureau of Land Management (BLM) (BLM Application Number 049491) in unincorporated Riverside County, approximately 6 miles north of Desert Center, California (Township 4 South, Range 15 East, Sections 25, 26, 27, USGS 7.5-minute *Victory Pass* and *East of Victory Pass* California quadrangles) (Figure 1). EnXco Development Corporation (enXco) proposes to build a 100-150 MW solar plant incorporating thin-film PV panels. PV technology utilizes solar cells in solar modules and arrays to convert the sun's energy into electricity.

The Right of Way Application consists of two non-contiguous parcels (Figure 2). The eastern parcel is 1,057 acres and the western parcel is 270 acres. This report addresses only the larger, eastern parcel, referred to as the "site" or "project site" throughout this report. The project site is currently vacant, undeveloped, natural open space. Surrounding land uses include undeveloped natural open space to the west, north and south (Figure 2). Some of the lands to the southeast of the site have been converted to agricultural uses (jojoba [*Simmondsia chinensis*] farming).



Regional Location
Desert Harvest Project

FIGURE

1



Project Location and Land Use
Desert Harvest Project

FIGURE

2

2.0 SITE CHARACTERISTICS

The proposed project site is located in the Colorado subdivision of the Sonoran Desert. This region is sparsely vegetated and characterized by broad valleys interspersed with mountain ranges and dry lakes.

2.1 Climate

Summer temperatures within the Colorado Desert routinely reach above 100°F (June through September) and annual average precipitation recorded at the Eagle Mountain weather station is less than four inches. On average, August receives the most rainfall, although rainfall is also received in the winter months of December, January, and February (Western Regional Climate Center [WRCC] 2010).

The Eagle Mountain weather station, (Station No. 042598) is the closest weather station to the project area, and is located approximately 2.5 miles west of the project site. The total rainfall for the 2009/2010 rainfall year (1 July through 30 June) was 5.37 in (13.64 cm), which exceeds the yearly average (3.68 in [9.35 cm]) by approximately 1.69 in (4.29 cm) (WRCC 2010).

2.2 Topography and Soils

The site is on the southeast-sloping bajada below the Eagle and Coxcomb mountains. Site topography is mostly flat with elevations ranging from 583 to 675 feet (ft) above mean sea level (amsl). Ground surface visibility within the site is greater than 80 percent (enXco 2010). Soils vary from sandy alluvium to hard packed desert pavement. Onsite ephemeral drainages flow southeasterly towards Desert Center at a slope of less than 1 percent (enXco 2010).

2.3 Vegetation Communities

Dominant vegetation communities within the project site include Creosote Bush-White Burr Sage Scrub and Smoke Tree Woodland (Sawyer et al. 2009). The Creosote Bush-White Burr Sage Scrub vegetation community is the equivalent to the "Sonoran Creosote Bush Scrub" and the Smoke Tree Woodland is the equivalent to the "Desert Dry Wash Woodland" described by Holland (1986).

2.3.1 Creosote Bush-White Burr Sage Scrub

The Creosote Bush-White Burr Sage Scrub vegetation community is the most characteristic vegetation of California desert communities. This vegetation community is characterized by low shrub species diversity and the wide spacing of the shrubs, usually with bare ground between, and is comprised of the co-dominant species creosote bush (*Larrea tridentata*) and white bursage (*Ambrosia dumosa*). Associated species include cheesebush (*Hymenoclea* [= *Ambrosia*] *salsola*), brittlebush (*Encelia farinosa*), pencil cholla (*Cylindropuntia ramosissima*), beavertail cactus (*Opuntia basilaris*), California fagonia (*Fagonia laevis*), and sticky fagonia (*Fagonia pachyacantha*). Many species of seasonal annuals, including desert sunflower (*Geraea canescens*), desert dandelion (*Malacothrix glabrata*), and desert four-spot (*Eremalche rotundifolia*), were observed onsite. The mapped Creosote Bush-White Burr Sage Scrub community also includes small patches of desert pavement with very sparse vegetation cover composed primarily of devil's spineflower (*Chorizanthe rigida*), kidneyleaf buckwheat

(*Eriogonum reniforme*), and Emory's rock daisy (*Perityle emoryi*), with relatively sparse cover of low-statured creosote bush. Creosote Bush-White Burr Sage Scrub is not designated as a high priority natural vegetation community by the California Department of Fish and Game (CDFG 2010c).

Creosote Bush-White Burr Sage Scrub on the site matches the Desert Scrub wildlife habitat described by Laudenslayer and Boggs (1988). It provides habitat for a variety of special-status and common wildlife species including burrowing species such as kangaroo rats (*Dipodomys* spp.), pocket mice (*Perognathus* spp.), and desert cottontail (*Sylvilagus auduboni*); and mesopredators such as desert kit fox (*Vulpes macrotis arsipus*) and coyote (*Canis latrans*). This scrub community also serves as habitat for several species of reptiles including desert iguana (*Dipsosaurus dorsalis*), sidewinder (*Crotalus cerastes*), desert horned lizard (*Phrynosoma platyrhinos*), Great Basin whiptail (*Aspidocelis tigris tigris*), long-nosed leopard lizard (*Gambelia wislizenii*) and zebra-tailed lizard (*Callisaurus draconoides*). Common birds observed within this vegetation community included black-throated sparrow (*Amphispiza bilineata*), verdin (*Auriparus flaviceps*), Gambel's quail (*Callipepla gambelii*), common raven (*Corvus corax*), red-tailed hawk (*Buteo jamaicensis*), turkey vulture (*Cathartes aura*), and cactus wren (*Campylorhynchus brunneicapillus*).

2.3.2 Smoke Tree Woodland

Smoke Tree Woodland occurs throughout the dry washes within the project area and is dominated by ironwood (*Olneya tesota*) and smoketree (*Psoralea spinosa*), with blue palo verde (*Parkinsonia florida*), and cat claw acacia (*Acacia greggii*) occurring in lesser numbers. Smoke Tree Woodlands are characterized by the presence of arborescent, often spiny, shrubs generally associated with washes or alluvial deposits adjacent to washes. Plant species in desert wash habitats are generally taller, up to approximately 9m (30 ft) in height, and denser than those of surrounding desert habitats, such as the Creosote Bush-White Burr Sage Scrub, with the height of the wash vegetation proportional to the size of the arroyo (Laudenslayer 1988). The Smoke Tree Woodland on the project site fits this description, with the ironwood, smoketree, and blue palo verde exceeding both the height and density of the surrounding Creosote Bush-White Burr Sage Scrub vegetation community, with many of the individual shrubs of the Smoke Tree Woodland located along the low, vertically-incised banks. This habitat supports a variety of wildlife species, essentially the same species as those occupying the Creosote Bush-White Burr Sage Scrub. This community is ranked by CDFG (2003; 20010c) as a special-status vegetation type, with state rarity ranking of S3. It is one of several communities included within broader vegetation types called desert wash woodland or microphyll woodland (Holland 1986; Schoenherr and Burk 2007).

3.0 SURVEY METHODOLOGY

This section provides an overview of methods used to evaluate special-status botanical resources associated with the project site (Figure 2).

3.1 Pre-Field Survey Methods

3.1.1 Literature and Database Review

Prior to field surveys, a literature review was conducted to identify special-status biological resources known from the vicinity of the project site. For the purpose of this review, "vicinity" includes all areas of the USGS 7.5-minute quadrangle wherein the project occurs and all surrounding quadrangles: *Victory Pass, East of Victory Pass, Desert Center, Corn Spring, Coxcomb Mountains, Pinto Wells, Placer Canyon, Buzzard Spring, Hayfield Spring, West of Palen Pass, Palen Lake, and Sidewinder Well*. The following literature and databases were reviewed:

- CDFG California Natural Diversity Database (CNDDDB) version 3.1.1 RareFind3 (CDFG 2010a);
- California Native Plant Society Electronic Inventory of Rare and Endangered Vascular Plants of California (CNPS 2010);
- Eastern Colorado Desert Coordinated Management (NECO) Plan (Bureau of Land Management [BLM] and CDFG 2002);
- List of California BLM Sensitive Plants (BLM 2009).

Based upon review of the literature and database above, and consulting with local experts (Andrew C. Sanders from the UC Riverside Herbarium), nineteen special-status plant species were identified to have the potential to occur within the vicinity of the proposed project (Appendix A). Plant taxa were considered to be special-status species if they were classified as one or more of the following:

- Listed or proposed for listing as threatened or endangered under Endangered Species Act (ESA) or candidates for possible future listing as threatened or endangered under the ESA (50 CFR §17.12);
- Listed or candidates for listing by the State of California as threatened or endangered under CESA (Fish and Game Code §2050 et seq.);
- Listed as BLM Sensitive ("all plant species that are currently on List 1B of the CNPS Inventory of Rare and Endangered Plants of California, are BLM sensitive species, along with others that have been designated by the California State Director," BLM 2009);
- Listed as rare under the California Native Plant Protection Act (Fish and Game Code §1900 et seq.);
- Meet the definition of rare or endangered under CEQA §15380(b) and (d). Species that may meet the definition of rare or endangered include the following:

- Species considered by the California Native Plant Society (CNPS) to be “rare, threatened or endangered in California” (Lists 1A, 1B and 2);
- Species that may warrant consideration on the basis of local significance or recent biological information;
- Some species included on the California Natural Diversity Database’s (CNDDB) Special Plants, Bryophytes, and Lichens List (CDFG).
- Considered a locally significant species, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA §15125 (c)) or is so designated in local or regional plans, policies, or ordinances (CEQA Guidelines). Examples include a species at the outer limits of its known range or a species occurring on an uncommon soil type.

In addition to specific plant taxa, special-status botanical resources include natural vegetation communities that are either unique, of relatively limited distribution in the region, or of particularly high wildlife value. As such, the CDFG maintains a list of natural communities recognized to be of high priority for inventory in CNDDB. Lead agencies may request that impacts to these communities be addressed in environmental documents. Local agencies may also have policies requiring avoidance of rare community types (CDFG 2010c).

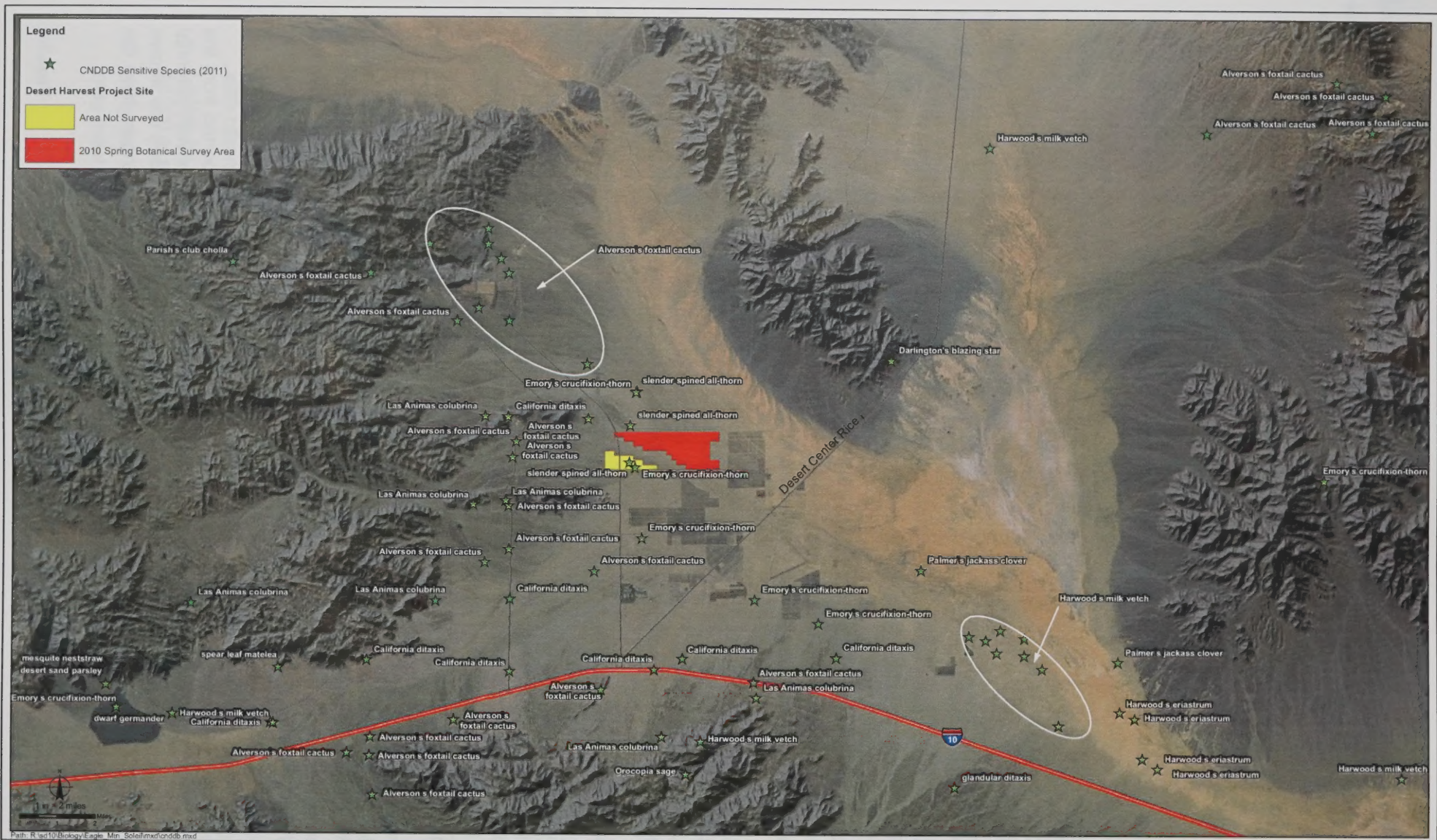
Appendix A presents the list of 19 special-status species considered, based on the literature review, to have potential to occur within the project area, as well as their habitat requirements, distribution, blooming period, listing status and occurrence probability. Figure 3 illustrates documented occurrences of special-status plant species that are known from the vicinity.

3.2 Reference Site Visits

Where available, reference populations located within the general vicinity of the project area were visited for observation prior to field surveys. Two reference populations of special-status species that have potential to occur within the project area were identified and visited by AMEC biologist Nathan Moorhatch and AMEC botanist Shari Norton: Coachella Valley milk-vetch and Harwood’s milk-vetch (*Astragalus insularis* var. *harwoodii*).

A reference population of Coachella Valley milk-vetch located at the southeast corner of the intersection of 18th Avenue and Palm Drive in the City of Desert Hot Springs was visited on 12 April 2010. Coachella Valley milk-vetch was observed in fruit at the time of the visit. A reference population of Harwood’s milk-vetch located north of Interstate 10 and west of Mesa Road in the City of Blythe was also visited on 12 April 2010. Harwood’s milk-vetch was observed blooming and in fruit at the time of this visit.

Coachella Valley milk-vetch is the only listed threatened or endangered plant reported from the vicinity and Harwood’s milk-vetch is a relatively widespread CNPS List 2.2 species with potential to occur in the project area. No BLM Sensitive Species or CNPS List 1B species are known from the project vicinity. Reference populations for other special-status plants known from the vicinity were not visited.



Special-Status Plant Species Known to Occur within the Project Vicinity
Desert Harvest Project

FIGURE

3

3.3 Field Survey Methods

Focused surveys for special-status plants were conducted in accordance with the Bureau of Land Management (BLM) *Survey Protocols Required for NEPA/ESA Compliance for BLM Special Status Plant Species* (BLM 2009), as well as the CDFG *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFG 2009). Per these protocols, field surveys are to be conducted in a manner which maximizes the likelihood of locating special-status plant species or special-status natural communities that may be present. Surveys are to be floristic in nature (every plant taxon that is observed on site is identified to the taxonomic level necessary to determine rarity and listing status), conducted at the time of year when species are both evident and identifiable, and conducted using systematic field techniques in all habitats of the site to ensure thorough coverage of potential impact areas. Furthermore, when special-status plants are known to occur in the type(s) of habitat present in the project area, reference sites are to be visited to determine whether those species are identifiable at the time of the survey and to obtain a visual image of the target species, associated habitat, and associated natural community.

Focused surveys for special-status plants were conducted concurrently with desert tortoise (*Gopherus agassizii*) surveys (which included foot surveys of 100 percent of the project site). The desert tortoise surveys were conducted using belt transects spaced 10 meters (m) apart which were systematically walked over the entire 1,057-acre project site. The field crew conducting the desert tortoise survey was given a field guide prepared for this project that illustrated special-status plant species that were identified during the literature and database review (Appendix A). AMEC botanist Shari Norton accompanied all crews performing the desert tortoise surveys and documented all species within the project area.

Tortoise/special-status plant surveys were conducted between 12-17 April by biologists Jim Boone, PhD., Stephen Ferrand, William Ferrand, Alex Heindl, Nathan Moorhatch, Shari Norton, Michael Omana, Dennis Strong, and Michael Wilcox. These surveys were followed by a second survey that was conducted on 7 May 2010 by Nathan Moorhatch and Shari Norton to cover small portion of the project site for which the botanist was unavailable during the initial survey on April 17. During this May 7 survey, the AMEC biologists and botanist walked 10-meter wide belt transects and covered the entirety of the area previously not covered by the botanist. These surveys collectively provided thorough coverage throughout the site, using systematic field techniques in all habitats types present.

Special-status species data were collected using a global positioning system (GPS) device and added to the project's geographic information system (GIS) database. All GIS data were collected as polygon, line, or point data containing a list of attributes for each dedicated occurrence. All plant species encountered during the field surveys were identified and recorded (Appendix B). Species that could not be identified immediately were photographed or collected for further investigation using *The Jepson Manual* (Hickman 1993). Scientific and common names of plants follow Hickman (1993) or more recent published taxonomical revisions of genera.

Surveys included describing vegetation communities within the project area. Vegetation communities were described based on field biologists' qualitative judgements of biotic and abiotic features, including but not limited to species composition, species dominance, soils, substrates, hydrology, and topography. Vegetation communities were classified based on A Manual of California Vegetation (Sawyer et. al. 2009). Vegetation descriptions are provided in Section 2.3 of this report.

4.0 SURVEY RESULTS

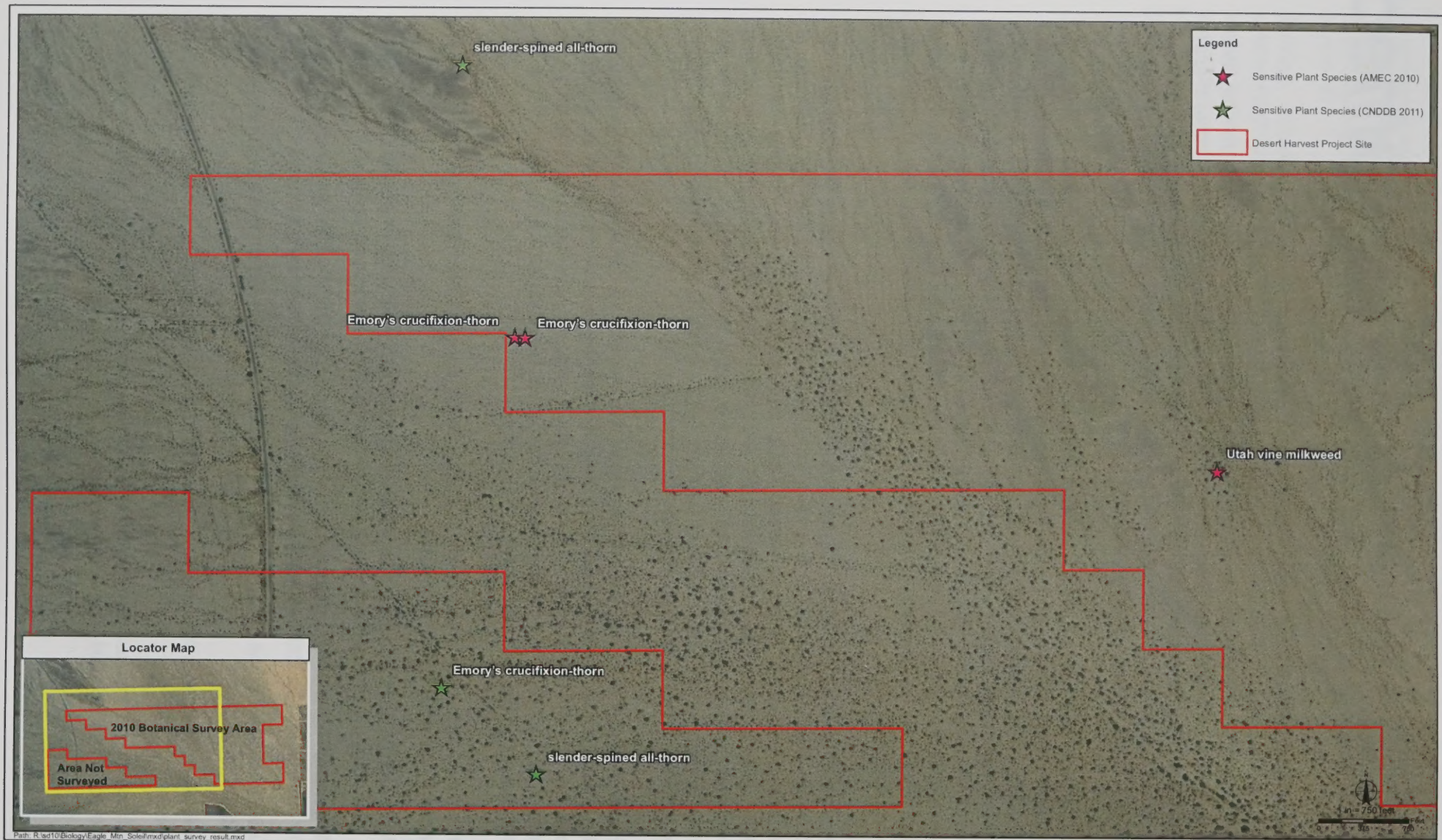
Two special-status plant species were observed during the focused survey: Emory's crucifixion thorn (*Castela emoryi*), and Utah vine milkweed (*Funastrum [=Cynanchum] utahense*) (Figure 4). While it is likely that the majority of individuals of these two special-status plant species were observed during the survey, it is possible that some individual plants were not observed due to growth under a scrub canopy, or other factors.

Emory's crucifixion is a CNPS List 2.3 species (rare, threatened, or endangered in California, but more common elsewhere) that is in the quassia family (Simaroubaceae). It is known to occur within Mojavean desert scrub, playas, and Sonoran desert scrub habitats within gravelly substrates at elevations ranging from 90-670 meters (m). Emory's crucifixion thorn is a deciduous shrub that blooms from June through July (CNPS 2010). Three individuals of this species were observed within the western portion of the project area (Figure 4) within the Bush-White Burr Sage Scrub vegetation community. Onsite photographs of this species are presented in Appendix C).

Utah vine milkweed is a CNPS List 4.2 species (limited distribution; watch list) that is in the milkweed family (Asclepiadaceae). It is known to occur within sandy or gravelly substrates of Mojavean desert scrub and Sonoran desert scrub habitats at elevations ranging from 150-1435m. Utah vine milkweed is a perennial herb and blooms from April through June (CNPS 2010). Two individuals of this species were observed within the southwestern portion of the project area (Figure 4) within the Bush-White Burr Sage Scrub vegetation community. Onsite photographs of this species are presented in Appendix C).

For each special-status plant species that may have the potential to occur within the project, the probability of occurrence was derived from field experience, expert consultation, reference populations, and/or from literature as compared to the habitat conditions encountered within the project area (Appendix A). Each species was assessed for its potential to occur within the project area based on the following criteria:

- **Observed:** Species observed on the site during surveys described here, or recorded onsite by other qualified biologists.
- **High:** Observed in similar habitat in region by qualified biologists, or habitat on the site is a type often utilized by the species and the site is within the known range of the species.
- **Moderate:** Reported sightings in surrounding region, or site is within the known range of the species and habitat on the site is a type occasionally used by the species.
- **Low:** Site is within the known range of the species but habitat on the site is rarely used by the species.
- **Unlikely to occur:** A focused study failed to detect the species, or, no suitable habitat is present.
- **Unknown:** No focused surveys have been performed in the region, and the species' distribution and habitat are poorly known.



Spring 2010 Focused Special-Status Plant Species Survey Results
Desert Harvest Project

FIGURE

4

5.0 CONCLUSION AND RECOMMENDATIONS

No state or federally listed threatened or endangered species or BLM-designated sensitive species were located on the project site. Two special status species, Emory's crucifixion thorn (CNPS List 2.3) and Utah vine milkweed (CNPS List 4.2) were found on the site (Figure 4). One federally listed endangered plant, Coachella Valley milk vetch, has been reported from the project vicinity; however, it is now thought that plants are not the listed variety and are instead the more common freckled milk vetch (*Astragalus insularis* var. *variabilis*). Regardless, if the occurrences of Coachella Valley milk vetch are accurate or not, the special-status surveys conducted for the project were conducted during the appropriate blooming period for this species, thus, it would have likely been observed during the field surveys. No BLM-designated sensitive species have been reported from the vicinity.

Given the above-average rainfall during the winter of 2009-2010, it is likely that the majority of spring-flowering species would have been observable during the surveys. Individuals of Emory's crucifixion thorn and Utah vine milkweed appeared healthy, with no evidence of drought stress, chlorosis, necrosis, or herbivory. It is important to note that one special-status plant species, glandular ditaxis (*Ditaxis claryana*), may have been undetectable due to their growing and/or blooming season occurring at a time other than the survey period. It is recommend that late-season surveys be done in late summer to early fall 2010 in the washes following summer, monsoonal rains, to ensure that all special-status plant species that are likely to occur onsite (Appendix A) are assessed.

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APPENDIX A

SPECIAL-STATUS PLANT SPECIES WITH POTENTIAL TO OCCUR WITHIN THE DESERT HARVEST PROJECT

Sensitive species	Habitat and Distribution	Blooming Period	Status	Occurrence Probability
<i>Abronia villosa</i> var. <i>aurita</i> chaparral sand-verbena	Annual herb. Occurs in desert scrub in sandy soils east of the Little San Bernardino Mountains.	January – August	Federal: ND BLM:ND State: ND CNDDDB: S2.1 CNPS: List 1B.1	Moderate potential to occur. The plants in western Riverside County appear to be a distinct taxon from those found east of the mountains, and it is this taxon in western Riverside County which is of conservation concern not the desert taxon.
<i>Ammoselinum giganteum</i> desert sand-parsley	Occurs in Sonoran desert scrub in heavy soils under shrubs within the Coachella Valley.	March - April	Federal: ND BLM:ND State: ND CNDDDB: SH CNPS: List 2.3	Unlikely to occur. Suitable habitat onsite; however, this species was not observed during blooming period focused surveys.
<i>Astragalus insularis</i> var. <i>harwoodii</i> Harwood's milk-vetch	Annual herb. Occurs in desert dunes and Mojavean desert scrub, on sandy or gravelly soils.	January – May	Federal: ND BLM:ND State: ND CNDDDB:S2.2 CNPS: List 2.2	Unlikely to occur. Suitable habitat onsite; however, this species was not observed during blooming period focused surveys
<i>Astragalus lentiginosus</i> var. <i>coachellae</i> Coachella Valley milk-vetch	Annual/perennial herb. Occurs in Sonoran desert scrub in sandy flats, washes, outwash fans, sometimes on dunes.	February - May	Federal: END CA: ND CNDDDB:S2.1 CNPS: List 1B.2	Unlikely to occur. Suitable habitat onsite; however, this species was not observed during blooming period focused surveys.
<i>Ayenia compacta</i> ayenia	Perennial herb. Occurs in Sonoran desert scrub on rocky soils.	March – April	Federal: ND BLM:ND State: ND CNDDDB:S3.3 CNPS: List 2.3	Unlikely to occur. Suitable habitat onsite; however, this species was not observed during blooming period focused surveys.
<i>Castela emoryi</i> crucifixion thorn	Perennial deciduous shrub. Occurs in Mojavean desert scrub and Sonoran desert scrub, in playas, in gravelly soils, and sometimes in alkali playas or washes.	April - July	Federal: ND BLM:ND State: ND CNDDDB:S2.2 CNPS: List 2.3	Present. Species observed during focused surveys. See text and Figure 4.
<i>Colubrina californica</i> Las Animas colubrina	Perennial deciduous shrub. Occurs in Mojave desert scrub and Sonoran desert scrub in rocky canyon areas.	April – June	Federal: ND BLM:ND State: ND CNDDDB: S2S3.3 CNPS: List 2.3	Unlikely to occur. No suitable rocky canyon micro-habitat onsite; this species was not observed during blooming period focused surveys.
<i>Coryphantha alversonii</i> Alverson's foxtail cactus	Perennial stem succulent. Occurs in Mojavean desert scrub and Sonoran desert scrub in granitic sandy or rocky soils.	April – June	Federal: ND BLM:ND State: ND CNDDDB:S3.2 CNPS: List 4.3	Unlikely to occur. Suitable habitat onsite; however, this species was not observed during blooming period focused surveys.
<i>Funastrum</i> (=Cynanchum) <i>utahense</i> Utah vine milkweed	Perennial herb. Occurs in Mojavean desert scrub and Sonoran desert scrub in sandy or gravelly soils	April - June	Federal: ND BLM:ND State: ND CNDDDB:S3.2 CNPS: List 4.2	Present. Species observed during focused surveys. See text and Map 4.

Sensitive species	Habitat and Distribution	Blooming Period	Status	Occurrence Probability
<i>Ditaxis claryana</i> glandular ditaxis	Perennial herb. Occurs in Mojavean desert scrub and Sonoran desert scrub, in dry washes and on rocky hillsides, in sandy soils.	October – March	Federal: ND BLM:ND State: ND CNDDDB:S1 CNPS: List 2.2	Unlikely to occur. Suitable habitat onsite; however, this perennial species was not observed during focused surveys. Follow-up surveys recommended due to extended blooming season.
<i>Ditaxis serrata</i> var. <i>californica</i> California ditaxis	Perennial herb. Occurs in Sonoran desert scrub, on sandy washes and alluvial fans of the foothill and lower desert slopes.	March – December	Federal: ND BLM:ND State: ND CNDDDB:S2 CNPS: List 3.2	Unlikely to occur. Suitable habitat onsite; however, this species was not observed during blooming period focused surveys. Follow-up surveys recommended due to extended blooming season.
<i>Grusonia parishii</i> Parish's club-cholla	Perennial stem succulent. Occurs in Joshua tree woodland, Mojavean desert scrub, and Sonoran desert scrub on sandy and rocky soils.	May - June	Federal: ND BLM:ND State: ND CNDDDB:S2 CNPS: List 3.2	Unlikely to occur. Suitable habitat onsite; however, this species was not observed during blooming period focused surveys.
<i>Matelea parvifolia</i> spearleaf	Perennial herb. Occurs in Mojavean desert scrub and Sonoran desert scrub on rocky soils.	March – May	Federal: ND BLM:ND State: ND CNDDDB:S2.2 CNPS: List 2.3	Unlikely to occur. Suitable habitat onsite; however, this species was not observed during blooming period focused surveys.
<i>Salvia greatae</i> Orocopia sage	Perennial evergreen shrub. Occurs in Mojavean desert scrub and Sonoran desert scrub, in broad alluvial bajadas and fans adjacent to desert washes in gravelly or rocky soils, and slopes of canyons.	March - April	Federal: ND BLM:ND State: ND CNDDDB:S2 CNPS: List 1B.3	Unlikely to occur. Suitable habitat onsite; however, this species was not observed during blooming period focused surveys. Project site outside known range for species, which is on the south side of the Orocopia Mountains (pers. comm. Andy Sanders).
<i>Selaginella eremophila</i> desert spike-moss	Rhizomatous perennial herb. Occurs in Sonoran desert scrub, in shaded areas on gravelly soils, in crevices, or among rocks	(May) June (July) Months in parentheses are uncommon	Federal: ND BLM:ND State: ND CNDDDB:S2.2 CNPS: List 2.2	Unlikely to occur. Suitable habitat onsite; however, this species was not observed during focused surveys.
<i>Senna covesii</i> Coves's cassia	Perennial herb. Occurs in Sonoran desert scrub on sandy soils.	March – June	Federal: ND State: ND CNDDDB:S2.2 CNPS: List 2.2	Unlikely to occur. Suitable habitat onsite; however, this species was not observed during blooming period focused surveys.
<i>Stylocline sonorensis</i> mesquite neststraw	Annual herb. Occurs in Sonoran desert scrub on sandy soils.	April	Federal: ND BLM:ND State: ND CNDDDB: SX CNPS: List 1A	Unlikely to occur. Suitable habitat onsite; however, this species was not observed during blooming period focused surveys.

Sensitive species	Habitat and Distribution	Blooming Period	Status	Occurrence Probability
<i>Teucrium cubense</i> ssp. <i>depressum</i> dwarf germander	Annual herb. Occurs in desert dunes, Sonoran desert scrub, and playa margins, in areas where water accumulates following heavy rains.	March – May (uncommonly from September – November)	Federal: ND BLM:ND State: ND CNDDDB:S2 CNPS: List 2.2	Unlikely to occur. Suitable habitat onsite; however, this species was not observed during blooming period focused surveys.
<i>Wislizenia refracta</i> ssp. <i>refracta</i> jackass clover	Annual herb. Occurs in desert dunes within Mojavean desert scrub, Sonoran desert scrub, and playas.	April - November	Federal: ND BLM:ND State: ND CNDDDB:S1.2 CNPS: List 2.2	Unlikely to occur. Suitable habitat onsite; however, this species was not observed during blooming period focused surveys.

Definitions of Status Designations and Occurrence Probabilities for Tables 1, 2, and 3.

Federal designations

END: Endangered

ND: Not designated

State designations :

ND: Not designated

CNDDDB Rank:

- S1 = Critically Imperiled—Critically imperiled in the state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state/province.
- S2 = Imperiled—Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province.
- S3 = Vulnerable—Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.
- SH = All sites are historical
- SX = All California sites are extirpated.

California Native Plant Society (CNPS) designations: (Note: According to CNPS [Tibor 2001], plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code.)

- List 1B: Plants rare and endangered in California and throughout their range.
- List 2: Plants rare, threatened or endangered in California but more common elsewhere.
- List 3: Plants for which more information is needed.
- List 4: Plants of limited distribution; a "watch list."

CNPS List Extension

- 0.1: Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)
- 0.2: Fairly endangered in California (20-80% of occurrences threatened)
- 0.3: Not very threatened in California (<20% of occurrences threatened)

Definitions of occurrence probability:

- Present:** Observed on the site by AMEC personnel, or recorded on-site by other qualified biologists.
- High:** Observed in similar habitat in region by qualified biologists, or habitat on the site is a type often utilized by the species and the site is within the known range of the species.
- Moderate:** Reported sightings in surrounding region, or site is within the known range of the species and habitat on the site is a type occasionally used by the species.
- Low:** Site is within the known range of the species but habitat on the site is rarely used by the species.
- Unlikely to occur:** A focused study failed to detect the species, or, no suitable habitat is present.
- Unknown:** No focused surveys have been performed in the region, and the species' distribution and habitat are poorly known.

APPENDIX B

OBSERVED VASCULAR PLANT SPECIES

Scientific Name	Common Name
ANGIOSPERMS (DICOTYLEDONS)	
<u>AMARANTHACEAE(CHENOPODIACEAE)</u>	<u>AMARANTH FAMILY</u>
<i>Chenopodium</i> sp.	goosefoot
<i>Tidestromia oblongifolia</i>	Arizona honeysweet
<u>APOCYNACEAE (ASCLEPIADACEAE)</u>	<u>DOGBANE FAMILY</u>
<i>Asclepias erosa</i>	desert milkweed
<i>Asclepias subulata</i>	rush milkweed
<i>Funastrum (= Cynanchum) utahense</i>	Utah vine milkweed
<u>ASTERACEAE</u>	<u>SUNFLOWER FAMILY</u>
<i>Ambrosia dumosa</i>	burro bush
<i>Ambrosia salsola</i>	cheesebush
<i>Bebbia juncea</i>	sweetbush
<i>Chaenactis carphoclinia</i>	pebble pincushion
<i>Chaenactis fremontii</i>	pincushion flower
<i>Chaenactis stevioides</i>	desert pincushion
<i>Encelia farinosa</i>	brittlebush
<i>Encelia frutescens</i>	button brittlebush
<i>Geraea canescens</i>	desert sunflower
<i>Malacothrix glabrata</i>	desert dandelion
<i>Monoptilon bellioides</i>	Mojave desert star
<i>Perityle emoryi</i>	Emory's rock daisy
<i>Psathyrotes ramosissima</i>	turtleback
<i>Rafinesquia neomexicana</i>	desert chicory
<u>BORAGINACEAE</u>	<u>BORAGE FAMILY</u>
<i>Cryptantha barbiger</i>	bearded cryptantha
<i>Cryptantha dumetorum</i>	twining cryptantha
<i>Cryptantha pterocarya</i>	winged-nut forget-me-not
<i>Pectocarya platycarpa</i>	broadfruit combseed
<i>Pectocarya recurvata</i>	curvenut combseed
<u>BRASSICACEAE</u>	<u>MUSTARD FAMILY</u>
* <i>Brassica tournefortii</i>	wild turnip
<i>Lepidium lasiocarpum</i>	shaggyfruit pepperweed
<u>CACTACEAE</u>	<u>CACTUS FAMILY</u>
<i>Cylindropuntia echinocarpa</i>	golden cholla
<i>Cylindropuntia ramosissima</i>	pencil cholla
<i>Ferocactus cylindraceus</i>	barrel cactus
<i>Opuntia basilaris</i>	beavertail cactus
<u>CARYOPHYLLACEAE</u>	<u>PINK FAMILY</u>
<i>Achyrotonchia cooperi</i>	frost mat
<u>CUCURBITACEAE</u>	<u>GOURD FAMILY</u>
<i>Brandegea bigelovii</i>	desert starvine
<u>EHRETIACEAE (BORAGINACEAE)</u>	<u>EHRETIA FAMILY</u>
<i>Tiquilia plicata</i>	plicate tiquilia
<u>EUPHORBIACEAE</u>	<u>SPURGE FAMILY</u>
<i>Chamaesyce albomarginata</i>	rattlesnake weed
<i>Chamaesyce polycarpa</i>	golondrina
<i>Croton californicus</i>	California croton

Scientific Name	Common Name
<i>Ditaxis lanceolata</i>	lanceleaf ditaxis
<i>Ditaxis neomexicana</i>	common ditaxis
<i>Stillingia linearifolia</i>	linear-leaved stillingia
<u>FABACEAE</u>	<u>LEGUME FAMILY</u>
<i>Acacia greggii</i>	cat claw acacia
<i>Dalea mollissima</i>	hairy dalea
<i>Lupinus arizonicus</i>	Arizona lupine
<i>Lupinus sp.</i>	lupine
<i>Marina parryi</i>	Parry dalea
<i>Olneya tesota</i>	ironwood
<i>Parkinsonia florida</i>	blue palo verde
<i>Psoralea arguta</i>	dye plant
<i>Psoralea schottii</i>	indigobush
<i>Psoralea spinosa</i>	smoke tree
<u>FOUQUIERIACEAE</u>	<u>OCOTILLO FAMILY</u>
<i>Fouquieria splendens</i>	ocotillo
<u>HYDROPHYLLACEAE</u>	<u>WATERLEAF FAMILY</u>
<i>Phacelia crenulata</i> var. <i>ambigua</i>	purple-stem phacelia
<u>MALVACEAE</u>	<u>MALLOW FAMILY</u>
<i>Eremalche rotundifolia</i>	desert four-spot
<u>NYCTAGINACEAE</u>	<u>FOUR O'CLOCK FAMILY</u>
<i>Abronia villosa</i> var. <i>villosa</i>	sand verbena
<u>ONAGRACEAE</u>	<u>EVENING PRIMROSE FAMILY</u>
<i>Camissonia boothii</i>	Booth's evening-primrose
<i>Camissonia claviformis</i>	brown-eyed evening primrose
<i>Camissonia sp.</i>	evening primrose
<u>PAPAVERACEAE</u>	<u>POPPY FAMILY</u>
<i>Eschscholzia minutiflora</i>	pygmy goldenpoppy
<u>PLANTAGINACEAE</u>	<u>PLANTAIN FAMILY</u>
<i>Plantago ovata</i>	woolly plantain
<u>POLEMONIACEAE</u>	<u>PHLOX FAMILY</u>
<i>Gilia latifolia</i>	broadleaf gilia
<i>Loeseliastrum schottii</i>	Schott's calico
<u>POLYGONACEAE</u>	<u>BUCKWHEAT FAMILY</u>
<i>Chorizanthe brevicornu</i>	brittle spineflower
<i>Chorizanthe corrugata</i>	wrinkled spineflower
<i>Chorizanthe rigida</i>	devil's spiny herb
<i>Eriogonum reniforme</i>	kidneyleaf buckwheat
<u>RESEDACEAE</u>	<u>MIGNONETTE FAMILY</u>
<i>Oligomeris linifolia</i>	narrow-leaved oligomeris
<u>SIMAROUBACEAE</u>	<u>QUASSIA FAMILY</u>
<i>Castela emoryi</i>	crucifixion thorn
<u>ZYGOPHYLLACEAE</u>	<u>CALTROP FAMILY</u>
<i>Fagonia laevis</i>	California fagonia
<i>Fagonia pachyacantha</i>	sticky fagonia
<i>Larrea tridentata</i>	creosote bush
<i>Tribulus terrestris</i> *	puncture vine

Scientific Name	Common Name
ANGIOSPERMS (MONOCOTYLEDONS)	
<u>ARECACEAE</u>	<u>PALM FAMILY</u>
* <i>Phoenix dactylifera</i>	date palm
<u>LILIACEAE</u>	<u>LILY FAMILY</u>
<i>Calochortus</i> sp.	mariposa lily
<i>Hespercallis undulata</i>	desert lily
<u>POACEAE</u>	<u>GRASS FAMILY</u>
<i>Pleuraphis (=Hilaria) rigida</i>	big galleta
<i>Schismus barbatus</i> *	Mediterranean schismus

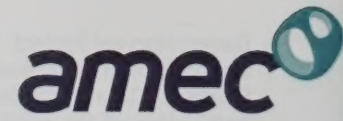
Notes:

This list reports plants observed during site surveys. Other species may have been undetectable due to their growing season. Plants were identified from keys, descriptions and drawings in Hickman (ed.) 1993 and Munz 1974. Some specimens were identified or confirmed by Andrew Sanders (U.C. Riverside Herbarium). Unless noted otherwise, nomenclature and systematics follows Hickman (ed.) 1993. Where other names are also in use, they are noted in parentheses.

Symbols and Abbreviations:

- * = Non-native species
- Sp = Plant identified only to genus
- ssp. = Subspecies

Desert Harvest Project
Spring 2010 Special-status Plant Species Surveys
Riverside County, California
AMEC Project No. 1055400425
15 April 2011



APPENDIX C

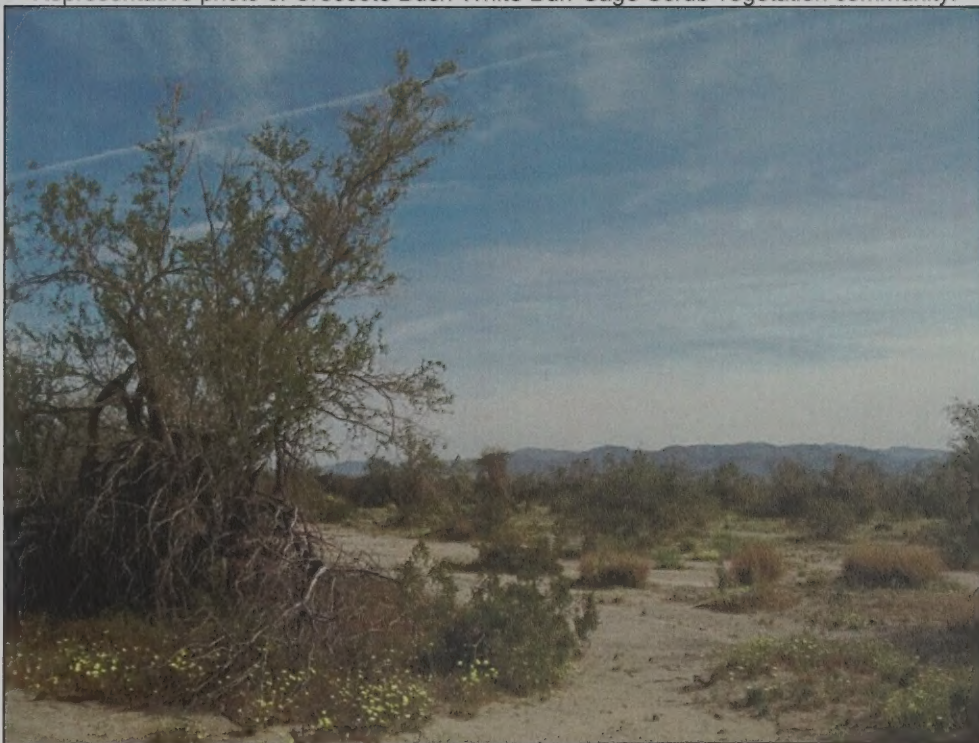
REPRESENTATIVE SITE PHOTOGRAPHS

DESERT HARVEST PROJECT
FOCUSED SPECIAL-STATUS PLANT SPECIES SURVEYS
PHOTOGRAPHIC LOG



Photograph No. 1

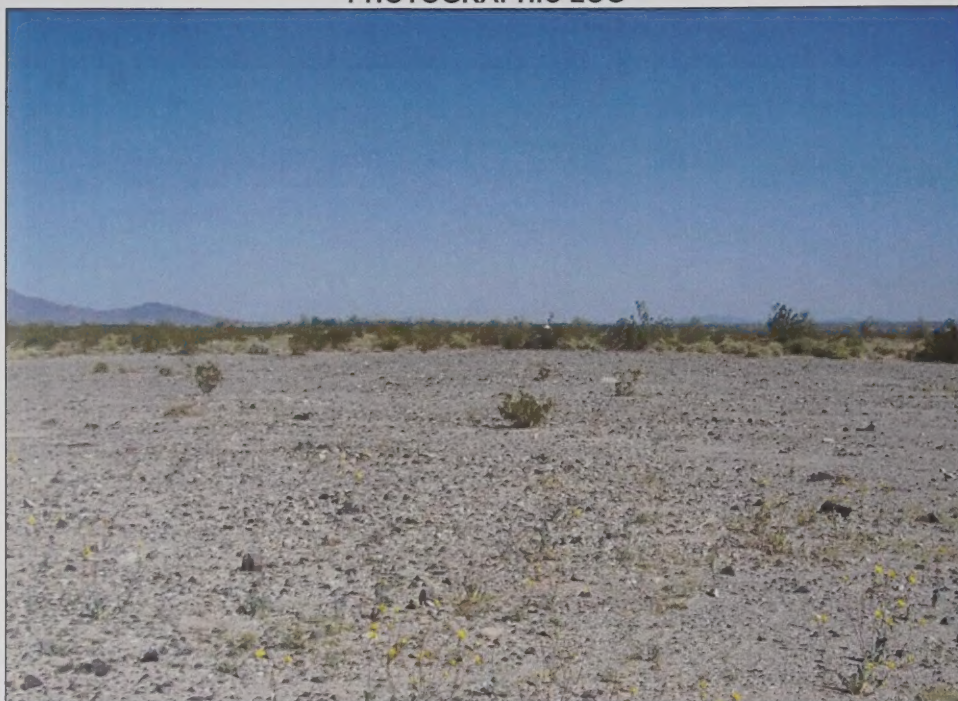
Representative photo of Creosote Bush-White Burr Sage Scrub vegetation community.



Photograph No. 2

Representative photo of Smoke Tree Woodland vegetation community.

DESERT HARVEST PROJECT
FOCUSED SPECIAL-STATUS PLANT SPECIES SURVEYS
PHOTOGRAPHIC LOG



Photograph No. 3

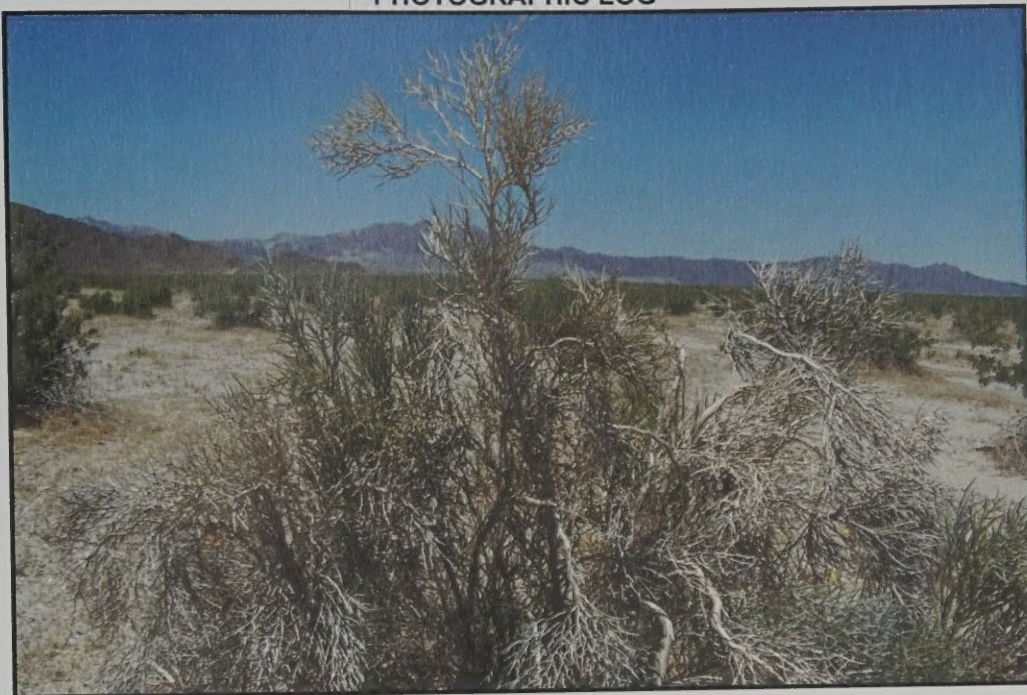
Representative photo of desert pavement area within the Creosote Bush-White Burr Sage Scrub vegetation community.



Photograph No. 4

Surveyors walking belt transect Creosote Bush-White Burr Sage Scrub vegetation community.

DESERT HARVEST PROJECT
FOCUSED SPECIAL-STATUS PLANT SPECIES SURVEYS
PHOTOGRAPHIC LOG



Photograph No. 5

Photo of crucifixion thorn (*Castela emoryi*).



Photograph No. 6

Photo of Utah cynanchum (*Funastrum* [=*Cynanchum*] *utahense*).

Appendix C.4

Avian Point Counts in 2011

Desert Harvest Solar Project

Avian Point Counts in 2011

Riverside County, California

**Township 4 South, Range 15 East, Sections 25, 26 & 27
USGS 7.5' Victory Pass & East of Victory Pass Quadrangles**



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AMEC Project No. 11-554-00460

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ACRONYMS AND ABBREVIATIONS

AMEC	AMEC Earth & Environmental, Inc.
BLM	Bureau of Land Management
CDFG	California Department of Fish and Game

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1.0 INTRODUCTION

AMEC Earth & Environmental, Inc. (AMEC) was contracted by Aspen Environmental Group (Aspen) to conduct avian point count surveys during winter and spring of 2011 for the proposed Desert Harvest photovoltaic solar energy project located in unincorporated Riverside County California. The proposed project consists of the development of a 100-150 mega-watt photovoltaic panel solar power plant. These surveys were conducted to comply with requirements of the Bureau of Land Management (BLM) for renewable energy projects.

2.0 PROJECT LOCATION AND DESCRIPTION

The Desert Harvest project site is located on public lands administered by the BLM in unincorporated Riverside County, approximately 6 miles north of Desert Center, California (Township 4 South, Range 15 East, Sections 25, 26, 27, USGS 7.5' *Victory Pass & East of Victory Pass* quadrangles)(see Figure 1). The applicant, enXco Development Corporation (enXco) proposes to build a 100-150 mega-watt (MW) solar power generating plant incorporating thin-film photovoltaic panels (enXco 2010). The serialized application number assigned by the BLM for this project is 049491. The Right of Way Application consists of two non-contiguous parcels (see Figure 2). The eastern parcel is 1,055 acres and the western parcel is 270 acres.

Site topography is mostly flat with elevations ranging from 583 to 675 feet above sea level. Soils vary from sandy alluvium to hard packed desert pavement. Onsite ephemeral drainages flow southeasterly towards Desert Center at a slope of less than 1% (enXco 2010).

Surrounding land uses include undeveloped natural open space to the west, north and south. Some of the lands to the southeast of the site were converted to agricultural uses (jojoba [*Simmondsia chinensis*] farming) in the past but now appear to be abandoned.

3.0 METHODS

Field survey methods were derived and adapted from the following sources and approved prior to initiation of point count surveys by the BLM Desert District Office (L. LaPré, *in litt.*):

- BLM Solar Facility Point Count Protocol (2009);
- Managing and Monitoring Birds Using Point Counts, (Ralph et al. 1995)

The BLM point count protocol is as follows:

- One point count transect per square mile
- Eight point count locations per transect
- Point counts must be at least 250 meters apart
- Conduct point counts one day per week for four consecutive weeks between March and April (breeding)

- Conduct point counts one day per week for four consecutive weeks between November and January (wintering)
- Conduct point counts during the four hour period beginning at sunrise on any given date
- Each point count shall be ten minutes long, with all birds recorded within a 100 meter radius
- Concentrate the point count stations in areas where there will be birds (washes, high vegetation areas, etc.)

The project site is 1,325 acres, or 45 acres in excess of two sections. AMEC contacted Dr. Lawrence F. LaPré of the BLM regarding the number of transects necessary for this project site. Dr. LaPré stated that two transects of eight point count stations each was adequate (pers. comm. with S. Myers).

The point count locations were established in the field on 27 December 2010 by Stephen J. Myers and Chet McGaugh. As specified in the BLM protocol, the points were placed in the most suitable areas for birds (e.g., washes and relatively high density vegetation areas). Aerial photographs were examined in order to determine the most likely areas of well developed habitat. These areas were walked, and points were established at locations with good visibility. Many of the point count stations were located within or adjacent to washes that are dominated by ironwood (*Olneya tesota*), with lesser amounts of smoketree (*Psoralea argophylla*), blue palo verde (*Parkinsonia florida*), and catclaw (*Acacia greggii*). Several of the points were established at or just outside the edge of wash habitat in order to sample the adjacent areas dominated by creosote bush (*Larrea tridentata*) and white bursage (*Ambrosia dumosa*). Each point was captured on a hand-held Global Positioning System unit, and marked with wooden stakes (approximately 2 feet tall) driven into the ground. Each stake was further marked with brightly-colored flagging in order to maximize visibility. Each point count station was assigned an identifying number (1 through 16). Photo 1 shows a typical point count location.

Conducting point counts on the two transects (16 stations) during the required 4-hour window required two “person-days” (mornings) to complete each weekly series of counts. Access and logistics resulted in a division of labor whereby the number of points visited by each ornithologist varied from seven to nine per morning. Table 1 includes the surveyors, survey dates, times, and weather variables.

Table 1.
Desert Harvest Solar Project Point Count Survey (2011) Data.

Date	Surveyor	Point Numbers	Time	Temperature (°F)	Cloud Cover (%)	Wind Speed (mph)
Winter Season Survey #1						
4 January	CM	1-5, 9-10	0659-1000	39-50	0	0-5
4 January	SJM	6-8, 11-16	0709-0950	39-50	0	0-5
Winter Season Survey #2						
10 January	CM	9-16	0715-0930	50-63	20	0-1
10 January	SJM	1-8	0700-0957	50-63	20	0-1
Winter Season Survey #3						
17 January	SJM	9-16	0654-0905	58-69	0	0-2
18 January	SJM	1-8	0657-1005	58-72	0	1-4
Winter Season Survey #4						
24 January	CM	1-8	0650-1005	44-65	0	0-1
24 January	SJM	9-16	0654-1001	44-64	0	0-1
Nesting Season Survey #1						
30 March	JFG	6-8, 11-16	0818-1112	65-82	20	0-12
30 March	CM	1-5, 9-10	0813-1032	65-82	20	0-12
Nesting Season Survey #2						
5 April	CM	6-8, 11-16	0738-0952	58-78	20	0-2
5 April	SJM	1-5, 9-10	0659-0930	57-77	10	1-2
Nesting Season Survey #3						
14 April	JFG	1-5, 9-10	0715-1008	55-72	0	3-12
14 April	SJM	6-8, 11-16	0701-0927	55-70	0	8
Nesting Season Survey #4						
28 April	CM	1-5, 9-10	0722-0900	71-84	0	0-1
28 April	SJM	6-8, 11-16	0714-0938	70-84	0	2-6

Key to Surveyors: JFG = John F. Green, CM = Chet McGaugh, SJM = Stephen J. Myers

During each visit, the surveyors recorded all birds detected during the 10-minute count period at each point count station. In addition, the surveyors noted any other bird species that were encountered on the project site while walking or driving to and from the point count stations. A complete list of bird species detected during this study is included as Appendix 2.

4.0 RESULTS

Winter Season Point Counts

Sixty-six individual birds were detected during the winter season point counts, for a mean of 1.03 birds per point count (66 birds divided by [16 points X 4 counts]). Verdin (*Auriparus flaviceps*) was the most frequently encountered and numerous species detected during the winter, with 22 birds (33% of all birds detected, and detected on 30% of all counts). Fourteen species were detected during the winter counts (see Tables 2 through 5).

Nesting Season Point Counts

During the nesting season counts, 135 individual birds were detected (24 species) (see Tables 6 through 9). The mean number of birds per count during the nesting season was 2.11. Verdin was the most numerous and frequently detected species during nesting season (35 birds, or

26% of all birds detected, detected on 44% of counts). Ash-throated Flycatcher (*Myiarchus cinerascens*) [29 birds] and Loggerhead Shrike (*Lanius ludovicianus*) [12 birds] were the next most numerous birds during nesting season.

Several migratory species (which do not nest in the area of the project) were noted during the nesting season point counts, including Vaux's Swift (*Chaetura vauxi*), Gray Flycatcher (*Empidonax wrightii*), Violet-green Swallow (*Tachycineta thalassina*), Tree Swallow (*Tachycineta bicolor*), Cliff Swallow (*Petrochelidon pyrrhonota*), Barn Swallow (*Hirundo rustica*), and Blue-gray Gnatcatcher (*Polioptila caerulea*).

Incidental Observations

Common Ravens (*Corvus corax*) were frequently detected during and between point counts during both winter and nesting season. However, almost all ravens were observed at a distance, with only four individuals recorded within the 100 meter point count radius.

A total of 45 bird species was detected during the study, including the winter season, and nesting season point count data and incidental observations made during both seasons (see Appendix 2).

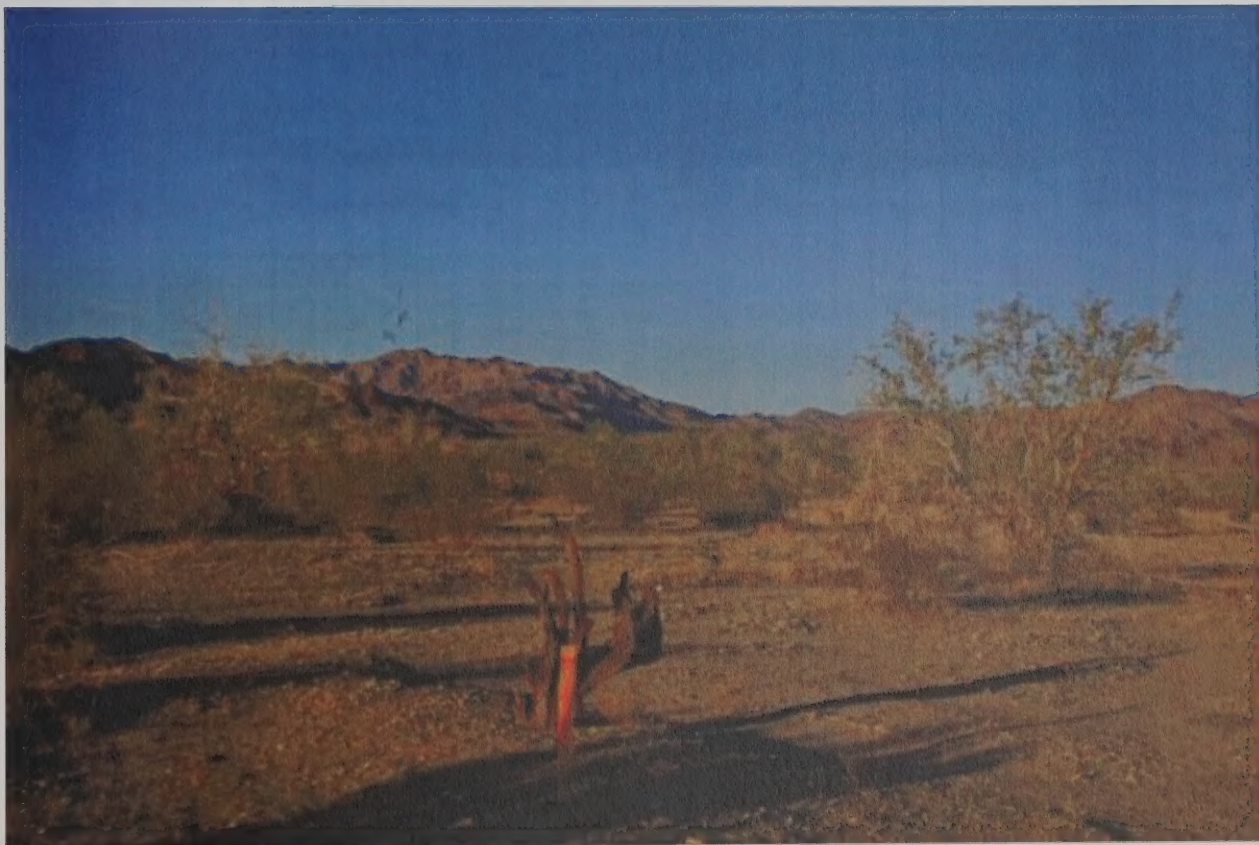


Figure 1. A typical point count station, showing the wooden stake marker (Point #3).

Table 2.
Desert Harvest Solar Project: Avian Point Counts, Winter Season, Survey #1.

Species	Point Count Stations															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ladder-backed Woodpecker	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Say's Phoebe	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
*Loggerhead Shrike	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Horned Lark	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-
Verdin	-	-	-	-	-	1	1	1	1	-	1	1	-	1	-	-
Blue-gray Gnatcatcher	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-
Black-tailed Gnatcatcher	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-
Ruby-crowned Kinglet	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Black-throated Sparrow	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
House Finch	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-

Table 3.
Desert Harvest Solar Project: Avian Point Counts, Winter Season, Survey #2.

Species	Point Count Stations															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Say's Phoebe	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
*Loggerhead Shrike	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Verdin	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-
Black-tailed Gnatcatcher	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Black-throated Sparrow	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
House Finch	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 4.
Desert Harvest Solar Project: Avian Point Counts, Winter Season, Survey #3.

Species	Point Count Stations															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ladder-backed Woodpecker	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
*Loggerhead Shrike	-	-	1	1	-	-	-	-	1	-	-	-	-	-	-	-
Common Raven	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
Verdin	1	-	-	-	-	1	-	1	1	1	1	-	-	-	-	1
Black-tailed Gnatcatcher	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Phainopepla	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Yellow-rumped Warbler	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-
Black-throated Sparrow	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Lesser Goldfinch	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-

Table 5. Desert Harvest Solar Project: Avian Point Counts, Winter Season, Survey #4.

Species	Point Count Stations															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Red-tailed Hawk	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Say's Phoebe	1	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-
*Loggerhead Shrike	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-
Verdin	-	-	-	-	-	-	-	-	2	-	-	-	1	-	-	2
Blue-gray Gnatcatcher	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Black-tailed Gnatcatcher	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
American Pipit	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Yellow-rumped Warbler	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-

Table 6. Desert Harvest Solar Project: Avian Point Counts, Nesting Season, Survey #1.

Species	Point Count Stations															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
American Kestrel	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Mourning Dove	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
Gray Flycatcher	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Ash-throated Flycatcher	-	-	-	-	1	1	2	-	-	-	3	-	2	-	-	1
*Loggerhead Shrike	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Horned Lark	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	2
Violet-green Swallow	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-
Verdin	-	-	-	-	1	-	1	-	1	-	1	1	-	-	-	-
Black-tailed Gnatcatcher	-	-	-	-	-	2	-	-	-	-	-	2	-	1	-	-
Yellow-rumped Warbler	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
White-crowned Sparrow	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
House Finch	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-

Table 7.
Desert Harvest Solar Project: Avian Point Counts, Nesting Season, Survey #2.

Species	Point Count Stations															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
White-winged Dove	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mourning Dove	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Ash-throated Flycatcher	-	-	-	-	2	2	-	-	-	-	1	-	2	1	1	-
*Loggerhead Shrike	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-
Horned Lark	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Tree Swallow	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Verdin	1	-	-	-	-	-	2	-	-	-	1	-	1	1	-	1
Bewick's Wren	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-

Table 8.
Desert Harvest Solar Project: Avian Point Counts, Nesting Season, Survey #3.

Species	Point Count Stations															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Turkey Vulture	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Unidentified hummingbird	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ladder-backed Woodpecker	-	-		1	-	-	-	-	-	-	-	-	-	-	-	-
Ash-throated Flycatcher	-	-	1	1	1	-	-	-	-	-	-	-	-	-	-	-
*Loggerhead Shrike	-	-	-	-	1	-	-	-	-	2	-	-	-	-	-	-
Common Raven	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cliff Swallow	-	-	3		-	-	-	-	-	-	-	-	-	-	-	-
Verdin	-	-	-	-	1	-	1	-	1	-	1		2	1		1
Black-tailed Gnatcatcher	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Northern Mockingbird	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Yellow-rumped Warbler	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-
Scott's Oriole	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-

Table 9.
Desert Harvest Solar Project: Avian Point Counts, Nesting Season, Survey #4.

Species	Point Count Stations															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
White-winged Dove	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Mourning Dove	-	2	1	-	-	-	-	1	-	-	1	-	1	-	-	-
Vaux's Swift	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-
Ladder-backed Woodpecker	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Ash-throated Flycatcher	1	-	-	1	2	-	-	2	1	-	1	-	-	-	-	-
*Loggerhead Shrike	-	-	-	-	1	-	-	1	-	1	-	2	-	-	-	1
Common Raven	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Barn Swallow	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Verdin	1	1	-	3	1	-	-	-	1	-	2	-	1	2	1	2
Bewick's Wren	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Black-tailed Gnatcatcher	-	2	-	-	-	1	-	1	-	-	-	-	-	1	-	-
Yellow-rumped Warbler	-	-	-	1	-	-	2	-	-	-	-	-	-	-	-	-
Bullock's Oriole	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

5.0 SPECIAL-STATUS BIRD SPECIES

Several special-status bird species were encountered during this study, or are known from the area:

- **Swainson's Hawk** – On 14 April 2011, John Green observed one Swainson's Hawk (*Buteo swainsoni*) flying approximately 1000 feet west of point #3. This bird was a migrant. Swainson's Hawks migrate on a broad front, both spatially and temporally, across much of southern California, including the coastal slope as well as the deserts. The nearest known nesting location is the Antelope Valley, at the western end of the Mojave Desert (Bechard et al. 2010). Swainson's Hawk is listed by the State of California as Threatened.
- **Gila Woodpecker** – On 27 December 2010, a Gila Woodpecker (*Melanerpes uropygialis*) was observed by Chet McGaugh and Stephen J. Myers during the point count station setup. This bird was seen in ironwoods near points #9 and #10. No other observations of this species were made during the study. Grinnell and Miller (1944) stated that "availability of diggable tree-trunks for nesting seems to be [the] primary factor for presence" of this species. It seems unlikely that ironwoods would be suitable for nesting due to their extremely dense wood, but Gila Woodpeckers have also been known (rarely) to excavate cavities in palo verde (Bent 1939). Since blue palo verdes are uncommonly scattered throughout the Desert Harvest project site, there is at least a low probability that they nest on or near the site. A sighting of Gila Woodpecker was reported on 28 September 2010 from the Desert Sunlight Project, approximately 2 miles west of the Desert Harvest site (eBird data). The Gila Woodpecker is listed by the State of California as Endangered.
- **Vermilion Flycatcher** – This species is known as a nesting bird at nearby Lake Tamarisk (C. McGaugh pers. comm., Myers 2008), approximately three miles south of the project site. Vermilion Flycatchers (*Pyrocephalus rubinus*) were not observed on the site but use habitats such as riparian woodland, arid scrub, farms lands, agricultural areas, parks, and golf courses (Myers 2008), and they could nest within the wash habitats on the project site. The Vermilion Flycatcher is a California Department of Fish and Game (CDFG) "Species of Special Concern."
- **Loggerhead Shrike** – Loggerhead Shrikes were recorded 11 times during point counts (a total of 14 birds). They were recorded at point count station numbers 1, 3, 4, 5, 8, 9, 10, 11, 12, and 16, indicating a broad distribution across the project area. The Loggerhead Shrike is a California Department of Fish and Game "Species of Special Concern."
- **Lucy's Warbler** – On 14 April 2011, two singing male Lucy's Warblers (*Oreothlypis luciae*) were detected near the southwestern corner of the eastern project site parcel. These birds were heard and seen as Myers was accessing point count stations to the north. Lucy's Warbler is a California Department of Fish and Game "Species of Special Concern," and could nest on the project site. Grinnell and Miller (1944) noted that in California this species nests almost exclusively in mesquite thickets, and that they range only locally and temporarily into riparian habitats and into palo verdes and ironwoods.

Three other CDFG "Special Concern" species were detected during the study: Osprey (*Pandion haliaetus*), Sharp-shinned Hawk (*Accipiter striatus*), and Vaux's Swift (*Chaetura vauxi*). The Sharp-shinned Hawk was seen on 10 January 2011, and was presumed to be a wintering bird. Nesting habitat for the Sharp-shinned Hawk is coniferous forest (Garrett and Dunn 1981). The other two species were spring migrants. Ospreys nest near bodies of water that provide abundant fish, which are their main prey items. In California, nesting Ospreys are restricted to the northern half of the state (Poole et al. 2004). Vaux's Swift nests in coniferous forest in the Cascades, Sierra Nevada, and coast ranges south to Monterey and Kern counties (Hunter 2008). The special status afforded these species by CDFG only applies to nesting birds.

6.0 LITERATURE CITED

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APPENDIX A
DESERT HARVEST SOLAR PROJECT
MAPS

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APPENDIX A
DESERT HARVEST SOLAR PROJECT
MAPS

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FIGURE

1

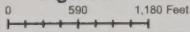


Project Boundary*
 Point Count Station**
★ Gila Woodpecker
 ▲ Singing Lucy's Warbler

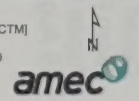
*04/13/10 **Loggerhead Shrike locations discussed in results section of report.

Desert Harvest Solar Project
 Avian Point Count Stations & Sensitive Bird Species Locations

Figure 2



Data:
 Projection: NAD_1983_California_Transverse_Mercator_[CTM]
 Resources: Boundary_EagleMtn_041310(ASPEN)
 Path: S:\active projects\EnXco\Desert Harvest 1155400460
 Survey: AMEC-12.27.10, 1.4.11
 Date: 8/16/11



APPENDIX B

DESERT HARVEST SOLAR PROJECT BIRD SPECIES LIST

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APPENDIX B
BIRD SPECIES LIST

[Note: This list includes species detected during point counts and during point count setup and access.
Species detected during point counts are marked with a †.]

BIRDS

New World Quail

Gambel's Quail

New World Vultures

Turkey Vulture †

Ospreys

Osprey

Hawks, Harriers, & Eagles

Sharp-shinned Hawk

Swainson's Hawk

Red-tailed Hawk †

Falcons

American Kestrel †

Gulls, Terns, & Skimmers

Unidentified gull (distant)

Pigeons & Doves

Eurasian Collared-Dove (nonnative)

White-winged Dove †

Mourning Dove †

Cuckoos & Allies

Greater Roadrunner

Swifts

Vaux's Swift †

Hummingbirds

Anna's Hummingbird

Woodpeckers

Gila Woodpecker

Ladder-backed Woodpecker †

Northern Flicker

AVES

Odontophoridae

Callipepla gambelii

Cathartidae

Cathartes aura

Pandionidae

Pandion haliaetus

Accipitridae

Accipiter striatus

Buteo swainsoni

Buteo jamaicensis

Falconidae

Falco sparverius

Laridae

Larus sp.

Columbidae

Streptopelia decaocto

Zenaida asiatica

Zenaida macroura

Cuculidae

Geococcyx californianus

Apodidae

Chaetura vauxi

Trochilidae

Calypte anna

Picidae

Melanerpes uropygialis

Picoides scalaris

Colaptes auratus

Tyrant Flycatchers

Gray Flycatcher †
Say's Phoebe†
Ash-throated Flycatcher †

Shrikes

Loggerhead Shrike †

Jays, Magpies, & Crows

Common Raven †

Larks

Horned Lark †

Swallows

Tree Swallow †
Violet-green Swallow †
Cliff Swallow †
Barn Swallow †

Penduline Tits & Verdins

Verdin †

Wrens

Bewick's Wren †

Kinglets

Ruby-crowned Kinglet †

Old World Warblers & Gnatcatchers

Blue-gray Gnatcatcher †
Black-tailed Gnatcatcher †

Mockingbirds, Thrashers, & Allies

Northern Mockingbird †

Wagtails & Pipits

American Pipit †

Silky-Flycatchers

Phainopepla †

Parulidae

Orange-crowned Warbler
Lucy's Warbler
Yellow-rumped Warbler †

Tyrannidae

Empidonax wrightii
Sayornis saya
Myiarchus cinerascens

Laniidae

Lanius ludovicianus

Corvidae

Corvus corax

Alaudidae

Eremophila alpestris

Hirundinidae

Tachycineta bicolor
Tachycineta thalissina
Petrochidon pyrrhonota
Hirunda rustica

Remizidae

Auriparus flaviceps

Troglodytidae

Thryomanes bewickii

Regulidae

Regulus calendula

Sylviidae

Polioptila caerulea
Polioptila melanura

Mimidae

Mimus polyglottos

Motacillidae

Anthus rubescens

Ptilogonatidae

Phainopepla nitens

Wood-Warblers

Oreothlypis celata
Oreothlypis luciae
Setophaga coronata

Emberizids

Brewer's Sparrow
Black-throated Sparrow †
White-crowned Sparrow †

Blackbirds & Allies

Bullock's Oriole
Scott's Oriole

Finches

House Finch †
Lesser Goldfinch †

Emberizidae

Spizella breweri
Amphispiza bilineata
Zonotrichia leucophrys

Icteridae

Icterus bullockii
Icterus parisorum

Fringillidae

Carpodacus mexicanus
Spinus psaltria

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